

# **Comprehensive Annual Financial Report** For the year ended December 31, 2010



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For the year ended December 31, 2010

Prepared by the staff of the Pennsylvania State Employees' Retirement System

Leonard Knepp Executive Director

Anthony J. Faiola Chief Financial Officer

State Employees' Retirement System 30 North Third Street, Suite 150 Harrisburg, PA 17101-1716

#### Commonwealth of Pennsylvania

#### State Employees' Retirement System





Nicholas J. Maiale Chairman

May 27, 2011

Honorable Tom Corbett, Governor Commonwealth of Pennsylvania

Members, Pennsylvania General Assembly

Members, Pennsylvania State Employees' Retirement System

Dear Governor Corbett, Legislators and Members:

The Board of the Pennsylvania State Employees' Retirement System (SERS) is pleased to present our Comprehensive Annual Financial Report (CAFR) on the SERS Fund (Fund) for calendar year 2010. The CAFR provides us with a vehicle to compile and publicly disclose extensive financial, investment and actuarial reports with introductions from SERS management and the Fund's consulting actuary.

This report reflects the Fund's continued recovery from the severe global economic downturn that so adversely affected the Fund in 2008. The Fund earned an 11.9% return in 2010, making 2010 the 12<sup>th</sup> year in the last 16 that the Fund has out-performed its assumed rate of return, currently 8%. All SERS returns are reported net of fees.

Still, the investment losses suffered in 2008 by SERS (along with virtually all other institutional investors) continue to weigh on the Fund, as the final 40% of those losses are to be recognized through the actuarial funding calculations over the next two years.

It is also important to note, as detailed in the Transmittal Letter, that SERS is a mature plan that pays out far more in benefits and refunds each year than it receives in contributions. For more than 15 years, the employer contribution rates have been historically low largely due to the rate suppressing effect of Act 2003-40, but that was about to end abruptly with a steep "spike" in the rate projected for 2012.

Act 2010-120, the pension reform legislation passed in late 2010, is moderating the rate increase by allowing rates to gradually return to unsuppressed levels over the next six years. Current projections show the rate peaking at 25.9% of payroll in FY 2016/17 and then remaining above 20% through 2027/28.

Rates in that range clearly will present the Commonwealth with a budgetary challenge but if Act 120 is to achieve its goal of addressing the pension funding issue, it is essential, as the actuaries state in their Certification "that the Commonwealth adhere not only to the short-term collars provided by Act 120 but also to the long-term funding obligations that the statute established."

It is important to understand that the projected increase in employer contributions is due primarily to the existing unfunded liability – debt that has already been incurred and is an obligation of the Commonwealth. As such, the unfunded liability can't be eliminated by further reducing future benefits.

On behalf of the 11-member SERS Board and the SERS staff, I assure you we will continue working with the General Assembly and the Administration to meet the many challenges that await us. Board and staff also will continue to pursue prudent long-term investment strategies to assure the solvency of the Fund and the quality of pension-related services to all SERS members.

Sincerely,

Nicholas J. Maiale SERS Board Chairman



#### **Actuarial Section Introductory Section GFOA Award Certificate** i Actuary's Certification 67 PPCC Public Pension Standards Award Certificate ii 70 Summary of Actuarial Assumptions and Methods Letter of Transmittal iii Schedules of Active Member Valuation Data 71 SERS Board v Schedule of Retirees and Beneficiaries Added to and 73 Removed from Rolls SERS' Vision, Mission and Organizational Chart vii 74 Solvency Test Analysis of Financial Experience 75 **Financial Section** History and Projection of Contribution Rates and 76 Independent Auditors' Report 1 **Funding Ratios** Management's Discussion and Analysis 2 77 Summary of Plan Provisions **Statistical Section Financial Statements** Statement of Plan Net Assets 10 Statistical Section Narrative 81 Statement of Changes in Plan Net Assets 11 Schedule of Trend Data 82 12 Notes to Financial Statements Schedule of Additions to Plan Net Assets 83 Schedule of Deductions from Plan Net Assets 84 Schedule of Benefit and Refund Deductions from Plan 85 **Required Supplementary Information** Net Assets By Type Schedule 1 - Schedule of Funding Progress 25 Schedule of Total Changes in Plan Net Assets 86 Schedule 2 - Schedule of Employer Contributions 25 Schedule of Investment Income 87 Schedule of Active Member Statistics 88 **Additional Financial Information** Schedule of Retired Members by Type of Benefit 89 Schedule of Administrative Expenses 26 Schedule of Retired Members by Option 90 Summary of Investment Expenses and Consulting Fees Schedule of Average Monthly Benefit Payments 91 Schedule of Average Annual Benefit Payments 92 **Investment Section** Schedule of SERS Agency Participation 93 Schedule of Additional Participating Employers 94 Report on Investment Activity 31 Investment Policy 33 **Investment Objectives** 34 **Investment Returns** 35 Largest Assets Held 36 Schedule of Trading Broker Commissions 37 38 **Investment Summary**

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

# Commonwealth of Pennsylvania State Employees' Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended December 31, 2009

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.

OF THE STATES SE CANADA CORPORATION SE ALL CANADA CANADA CORPORATION SE ALL CANADA CANADA CORPORATION SE ALL CANADA CANAD

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President

**Executive Director** 



**Public Pension Coordinating Council** 

# Public Pension Standards Award For Funding and Administration 2010

Presented to

### Pennsylvania State Employees' Retirement System

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

> Alan H. Winkle Program Administrator

alan Helinple



## Commonwealth of Pennsylvania **State Employees' Retirement System**

30 North Third Street, Suite 150 Harrisburg, Pennsylvania 17101-1716 Telephone: 717-787-9657 www.sers.state.pa.us



May 27, 2011

Mr. Chairman and Members of the Board:

We are pleased to present you with the Comprehensive Annual Financial Report (CAFR) of the Pennsylvania State Employees' Retirement System (System or SERS) for the calendar year ended December 31, 2010. Although SERS is not legally required to produce a CAFR, we do so in the interest of public accountability. Publication of this CAFR also serves to comply with the requirement, contained in the State Employees' Retirement Code, that SERS' financial statements be published, after auditing by an independent certified public accountant, on or before July 1 of each year.

#### **Financial Information**

The System's management is responsible for the preparation, accuracy and objectivity of the information included in this report, and accepts full responsibility for the contents, including not only the audited financial statements but all other information as well. The basic financial statements were prepared by management in accordance with generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board, and have been audited by an independent auditor. Users of the financial statements are encouraged to review the Management's Discussion and Analysis (MD&A), which accompanies the basic financial statements and discusses the market conditions, legislation and changes in operations that affected the financial results and funded status of the System.

SERS maintains an effective system of internal controls designed to provide reasonable assurance that assets are properly safeguarded, transactions are properly executed and the financial statements conform to generally accepted accounting principles. It should be recognized, however, that all internal controls have inherent limitations. These limitations exist because of several factors, including cost: The cost of attempting to establish a perfect internal control system would far outweigh the benefits derived. Another limitation is the potential for controls to be overridden by management, either individually or through collusion of two or more staff. To mitigate the risk caused by these inherent limitations, the System's Internal Audits division provides a continuing review of the adequacy and effectiveness of the System's internal control structure. Also, our independent external auditor, Clifton Gunderson LLP, conducts an annual audit of the financial statements in accordance with generally accepted auditing standards. Their audit includes tests and procedures designed to provide reasonable assurance that the financial statements are fairly presented. The external auditors have full and unrestricted access to the SERS Board members to discuss their audit and related findings regarding the integrity of financial reporting and adequacy of the internal control structure.

The annual financial audits show that the money entrusted to SERS is being properly managed so that we can continue meeting our obligation to our members and their Beneficiaries. Our members can be reassured that their retirement System is well managed and their benefits are secure.

The System also receives independent financial audited statements on all of its private equity, venture capital, pooled real estate, and absolute return fund-of-funds limited partnerships, as well as audited statements for its directly held real estate portfolios and collective trust funds.

#### **Profile of SERS**

SERS is a component unit of the Commonwealth of Pennsylvania, and administers a cost-sharing, multiple-employer defined benefit retirement plan. Founded in 1923, SERS is a mature pension plan in which Annuitants now outnumber Active Members.

The System is administered by an independent 11-member administrative board comprised of: the State Treasurer, ex officio; two state Senators; two members of the House of Representatives; and six members appointed by the Governor. The Board submits to the Governor and General Assembly, an annual budget covering all proposed administrative expenditures, which includes proposed expenditures the Board intends to pay through the use of directed commissions. The expenditures are approved by the General Assembly in an appropriation bill and paid from the SERS Fund (Fund). The Board is statutorily empowered with prudent investor authority and its investment program focuses on the primary investment objective of assuring the adequate accumulation of reserves in the Fund at the least cost to the citizens while preserving the principal against erosion from inflation. The Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location.

#### Membership, Funding and Contribution Trends

As a mature plan, SERS pays out far more in benefits and refunds each year than it receives in contributions: \$2.4 billion in payouts versus \$622 million in contributions in 2010. The difference must come from the Fund's earnings and accumulated reserves, necessitating an investment policy that maintains short-term liquidity while pursuing long-term returns of at least the actuarially assumed rate (currently 8.0%).

In 2010, the Fund's investment performance continued to recover from the severe global economic downturn that so adversely affected it in 2008. After earning a 9.1% return in 2009, the Fund earned an 11.9% return in 2010. As a result, 2010 was the 12<sup>th</sup> year in the last 16 that SERS has out-performed its assumed rate of return, currently 8%. Despite the unprecedented losses of 2008, the SERS Fund's

2010 CAFR Transmittal Letter - pg 2

actual long-term performance continues to exceed assumptions: The estimated compounded rate of return for the 20 years ended December 31, 2010 is 9.1% and the 30-year return is 10.1%. All SERS returns are reported net of fees.

The System ended 2010 with an actuarial funded ratio of 75.2%, down from the prior year's 84.4%. Both figures can be misleading, however, as the full effect of the 2008 losses have yet to be felt in the actuarial funded ratio due to the Fund's statutory five-year smoothing methodology. To date, 60% of the loss has been recognized, with the remaining 40% to be recognized over the next two years. Based on the market value of assets, the funded ratio at the end of 2010 was 66.1%, down slightly from the previous year's 68.9%.

Although the purpose of the CAFR is to provide information regarding SERS' status as of December 31, 2010, readers also should be aware of two developments impacting future funding:

First, as had been predicted for the maturing pension plan, the number of Annuitants receiving a benefit from the Fund overtook the number of Active Members contributing to the Fund last year; as of December 31, 2010 the System had 111,713 Annuitants and Beneficiaries, and 109,255 Active Members (and 6,326 inactive "Vestees"). That difference is expected to grow in future years as the number of Annuitants is expected to increase, while the number of Active Members is expected to remain relatively constant. As the number of retirees grows, the amount that must be paid out in benefits is expected to continue to increase. It is projected that by 2015, annual benefit payments will reach \$3.0 billion, 54% more than in 2005.

Second, in an effort to moderate the steep "spike" in employer contributions that was projected for 2012, the State Legislature passed Act 2010-120. The legislation reduced the cost of benefits for new employees by more than half, instituted an actuarial "fresh start" for amortizing liabilities and established funding "collars" that override actuarial calculations, permitting the composite employer contribution rate to rise by only specified amounts each year: 3.0% in FY 2011/12, 3.5% in FY 2012/13 and 4.5% each year thereafter until no longer needed. The composite employer rate for FY 2011/12 is 8% of payroll, but without the Act 120 rate collars that rate would have jumped to nearly 19% of payroll as a result of the actuarial fresh start.

While the employer rate will now increase gradually over the next six years, current projections show the rate peaking at 25.9% of payroll in FY 2016/17 and then remaining above 20% through 2027/28. It is important to understand that the projected increase in employer contributions are due primarily to the existing unfunded liability – debt that has already been incurred and is an obligation of the Commonwealth. Because it is a debt that has already been incurred, the unfunded liability can't be eliminated by reducing future benefits. In addition, employer rate projections assume that the System will continue to achieve its assumed rate of return on investments; that employers will pay in full each year's projected rate; and that no new COLAs are granted. If earnings fall short of assumptions, if actuarially required rates are not paid in any given year or years or if COLAs are granted, rates in future years could be even higher than currently projected. Should earnings exceed assumptions, rate projections could decline.

#### **Initiatives**

Throughout much of 2010, the System provided various legislative committees with calculations and analysis of the impact draft legislative changes would have on the Fund and future employer rates. In late November, pension reform legislation, including a reduced benefit for new members and funding methodology changes, was signed into law as Act 2010-120. At that point, the System quickly switched focus to updating internal computer systems and processes to handle the many changes by the January 1, 2011, effective date of that legislation. While pension funding and reform was a focus of attention in 2010, staff also worked to replace the System's aging general ledger software, researching different options and ultimately purchasing a new Web-based package with enhanced reporting features. In addition, the System studied its future technology needs and plans for addressing those needs through a series of assessments including internal staff surveys and evaluation by external experts.

#### Awards

We are very pleased to note that the Government Finance Officers Association of the United States and Canada (GFOA) again awarded SERS with a Certificate of Achievement for Excellence in Financial Reporting for SERS' 2009 CAFR. The certificate of achievement is a national award, recognizing conformance with the highest standards in government accounting and financial reporting. We believe our current CAFR meets GFOA requirements and will submit it to the GFOA for review.

In addition, SERS received the Public Pension Coordinating Council (PPCC) Standards Award recognizing "a high level of plan design, funding, member communications and administrative practices." PPCC comprises three national associations that, combined, represent retirement systems serving the vast majority of public employees in the U.S.

#### Acknowledgements

This report reflects the dedicated efforts of the SERS staff under the direction of the SERS Board. We would like to take this opportunity to express our gratitude to the Board, the staff, our advisors and others who have worked diligently to administer the System, enhance delivery of member services and manage the Fund's assets in a prudent fashion.

We will continue to strive to administer the System in a manner that ensures the accurate, timely payment of benefits, prompt and courteous service, and prudent management of the Fund's assets on behalf of our members and the Commonwealth's taxpayers.

Respectfully submitted,

Leonard Knepp Executive Director Anthony J. Faiola Chief Financial Officer

Honorable Nicholas J. Maiale *Chairman* 



**Honorable Robert A. Bittenbender** *Former State Secretary of the Budget* 



Honorable Michael F. Gerber State Representative



David R. Fillman

Executive Director, AFSCME Council 13



Honorable Robert W. Godshall State Representative



Honorable Vincent J. Hughes State Senator



Honorable Charles T. McIlhinney, Jr. State Senator



Wallace H. Nunn
Retired



Honorable Robert M. McCord

State Treasurer



Oliver C. Mitchell, Jr.

Attorney



Honorable M. Joseph Rocks
Retired Member and Former State Senator



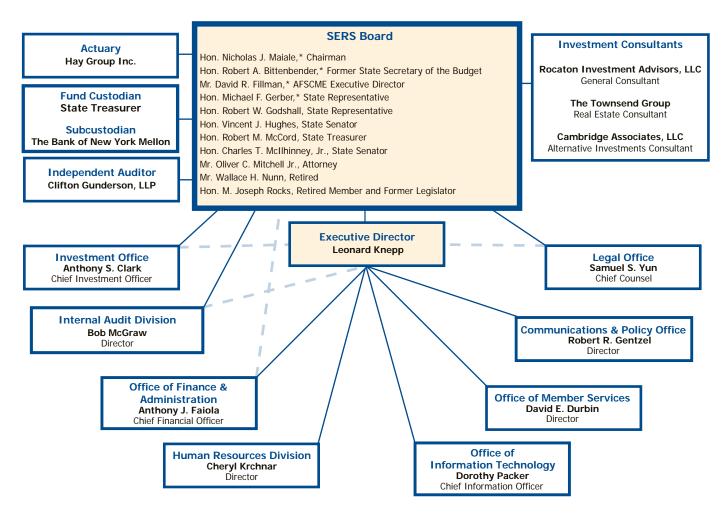
#### **SERS' Vision**

By 2014, SERS will have addressed the funding, policy, and operational challenges and will have managed the programs to address personnel and leadership transitions.

#### **SERS' Mission**

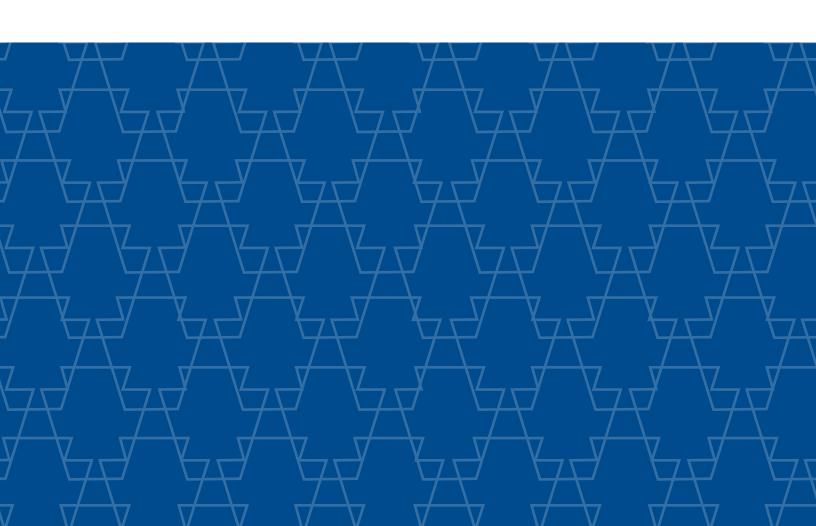
The mission of SERS is to provide retirement benefits and services to our members through sound administration and prudent investments.

#### **SERS' Organizational Chart**



\* Audit Committee Member 05-18-11

# **Financial Section**







#### Independent Auditor's Report

Members of the Board Commonwealth of Pennsylvania State Employees' Retirement System

We have audited the accompanying statements of plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System (the System), a component unit of the Commonwealth of Pennsylvania, as of and for the years ended December 31, 2010 and 2009, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System as of December 31, 2010 and 2009, and its changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The information included in Management's Discussion and Analysis and Required Supplemental Schedules 1 and 2 and the notes thereto is not a required part of the basic financial statements, but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The Supplemental Schedules 1 and 2 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The introductory section, investment section, actuarial section and statistical section as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The introductory, investment, actuarial and statistical sections have not been subject to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

Baltimore, Maryland

May 10, 2011



Clifton Gunderson LLP

# Financial Section Management's Discussion and Analysis As of December 31, 2010 and 2009

This section presents Management's Discussion and Analysis of the Pennsylvania State Employees' Retirement System's (System) financial statements and the significant events and conditions which affected the operations and performance of the System during the years ended December 31, 2010 and 2009.

The Management's Discussion and Analysis includes forward-looking statements that involve certain risks and uncertainties. Actual results and performance may differ materially from those expressed or implied in the forward looking statements due to a wide range of factors including: changes in securities markets, general economic conditions, interest rates, energy policies, legislation and global conflicts.

## Overview of the Financial Statements and Accompanying Information

- 1) Fund Financial Statements. The System presents
  Statements of Plan Net Assets as of December
  31, 2010 and 2009 and Statements of Changes in
  Plan Net Assets for the years then ended. These
  statements reflect resources available for the
  payment of benefits as of year-end, and the sources
  and uses of those funds during the year.
- 2) Notes to Financial Statements. The notes to financial statements are an integral part of the financial statements. We encourage readers to review them because the additional detailed information will provide a better understanding of the financial statements. The notes provide information about the System's organization, benefits and contributions, how asset values are determined, the limited use of derivatives in managing the System's assets, contingencies and commitments, actuarial methods, assumptions, and funding.
- **3) Required Supplementary Information.** The required supplementary information (RSI) consists of:
  - A schedule reflecting the funding progress of the System
  - A schedule showing the employer required contributions in dollars and percentage
  - This Management's Discussion and Analysis.
- **4) Other Supplemental Schedules.** Other schedules include detailed information on administrative expenses incurred by the System, a breakout of investment related expenses, and fees paid to consultants for professional services.

#### **Financial Analysis**

The System provides retirement benefits to the employees of the Commonwealth of Pennsylvania and certain other public agencies. The System's benefits are funded through member and employer contributions and investment income. The net assets of the System increased approximately \$1.2 billion for the year ended December 31, 2010 compared to an increase of approximately \$1.9 billion for the year ended December 31, 2009, as reflected in the table on page 9. The global recession that began in late 2007 continued into the first quarter of 2009, decreasing the Fund's assets, but as the markets began to recover over the subsequent three quarters, so did the Fund. The System's 2010 actuarial funded status of 75.2% decreased from 84.4% in 2009. By comparison, as reported in the Wilshire Associates' 2011 Wilshire Report on State Retirement Systems, a compilation of 2010 data on 99 state pension plans, the average funding level of state plans was 76%.

Every five years, the System is required to undergo an actuarial experience study to determine whether the assumptions used in the annual actuarial valuation are representative of current and anticipated trends. The latest 17th Investigation of Actuarial Experience study for the period 2006-2010 was released in January 2011. The actuary, in coordination with Board oversight, reviewed economic assumptions such as the assumed future investment returns on Fund assets and salary increases as well as demographic assumptions regarding turnover, retirement, disability, and death rates.

New economic assumption recommendations included keeping the targeted investment return rate assumption at 8.0%; decreasing the inflation rate from 3.0% to 2.75%; and decreasing the general salary growth rate from 3.3% to 3.05%.

Most of the demographic assumptions were similar to or the same as experienced in the last five years, with two exceptions. First, the Actuary recommended to add a margin to the annuitant mortality rates to anticipate continued improvement in mortality. SERS experience showed some signs that the continuous improvement in mortality may have paused, with higher than expected mortality at both younger (under 55) and older (over 90) ages. Second, it is assumed that the rate of disability retirements will be lower, but not as large a decrease in rates as observed during the last five years. Therefore, the disability rate should be set at 85% of the experience rather than 100%.

While some changes in assumptions will increase the projected cost of the System and some will decrease

the cost, overall it is expected that adoption of the recommended assumptions will slightly lower costs, due primarily to the slower expected pace of future salary increases.

The Board approved adoption of the actuarial assumptions set forth in the 17<sup>th</sup> *Investigation of Actuarial Experience* at the January 2011 meeting. The complete report can be viewed on the SERS website.

Annually, the System reviews and modifies, if necessary, its *Annual Strategic Investment Plan*. This process enables the System to position itself to respond to changing dynamics and fulfill its primary mission of meeting its benefit obligations to the System's members. Benefit expenses, including refunds of contributions, were \$2.4 billion in 2010. This expense level represents an increase in benefit expenses of 7.7% from the \$2.3 billion for 2009. The number of retirement age employees as of December 31, 2010 and 2009 were approximately 6,900 and 7,000, respectively. This compares to approximately 6,900 as of December 31, 2008.

#### **Funded Ratio**

The funded ratio of the Plan measures the ratio of actuarially determined assets against actuarial liabilities; which is a good indicator of a pension fund's fiscal strength and ability to meet its obligations to its members. The System is required by statute to perform an annual actuarial valuation. The actuarial process to develop the funded ratio is highly dependent on estimates and assumptions, particularly those regarding investment returns, salary growth, inflation, and demographics. In addition, the selection of methods such as amortization periods affects employer Contribution Rates and the funded ratio of the Plan. The Plan's funded ratio as of December 31, 2010 was 75.2%, a decrease from 84.4% at December 31, 2009 and 89.0% at December 31, 2008. The funded ratio of the Plan changed due to a decrease in actuarial assets and an increase in actuarial liabilities.

Actuarial assets decreased from \$30.2 billion at December 31, 2009 to \$29.4 billion at December 31, 2010 for a 2.6% decrease. At December 31, 2008 the actuarial assets were \$30.6 billion. The decrease in 2009 is primarily attributable to the amortization of investment returns well below the actuarial assumed rate of 8.5% in 2008. The drop in actuarial value of assets was not significant when compared to the significant negative 37.2% variance between the assumed actuarial rate of return and actual investment return for 2008. The fact that the actuarial assets did not drop in proportion to the level of negative returns

is due to the five-year smoothing of investment returns as mandated by the Retirement Code. As a result of this smoothing, 20% of the 2008 loss is being recognized each year. To date, 60% of the loss has been recognized, with the remaining 40% to be recognized over the next two years. We would expect to see an additional decrease in the actuarial value of assets in future years as the remaining 40% of the loss is amortized. This decrease is also demonstrated in the market value funded ratio that was 66.2% at December 31, 2008, 68.9% at December 31, 2009, and 66.1% at December 31, 2010. The increase in actuarial liabilities from \$34.4 billion at December 31, 2008 to \$35.8 billion at December 31, 2009 is primarily attributable to the change in the assumed investment rate from 8.5% to 8.0%, the cost of additional benefits that accrued during the year, and the general interest growth in active liabilities (due to a shorter period of time until payments are expected to be made to future retirees). The increase in actuarial liabilities from \$35.8 billion in 2009 to \$39.2 billion at December 31, 2010, is due primarily to the implementation of Act 2010-120. Act 120 lowered the Employer Normal Cost which reduced future employer contributions and increased accrued liability.

#### **Member Contributions**

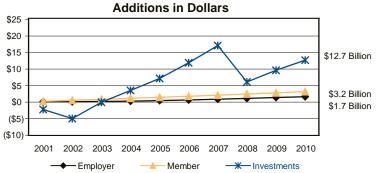
Additions to plan net assets include employer and member contributions and net income from investment activities. Member Contributions were approximately \$349 million for both years ended 2010 and 2009, and \$337 million, for the year ended December 31, 2008. There was no increase in gross salaries which remained at \$5.6 billion for 2010 and 2009. This was a result of across-the-board management employee salary freezes and of the fact that 2010 had 26 pay periods, one fewer than in 2009. The member rate of 6.25% of gross salary for most members is set by statute and has remained unchanged for the years presented.

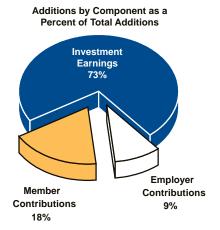
#### **Employer Contributions**

Employer contributions were approximately \$273 million, \$253 million, and \$235 million for the years ended December 31, 2010, 2009 and 2008, respectively, with 2010 contributions representing an increase of \$20 million compared to 2009. The increase from 2009 to 2010 was due to the increased employer rate on July 1, 2010 from 4.0% to 5.0%. The increase from 2008 to 2009 is a result of an increase in multiple service payouts due to increased retirements.

The employer contributions represent less than half of the Employer Normal Cost and have been low when compared to historical standards. Over the last ten years, employer contributions have been the smallest component of additions to the System's plan net assets. From 2001 through 2010, employer contributions totaled \$1.7 billion, representing 9% of total additions to plan net assets, compared to \$3.2 billion or 18% of total additions attributed to Member Contributions, and \$12.7 billion or 73% of total additions attributed to investment earnings as illustrated in the following charts:

#### Ten Year Cumulative Additions to Plan Net Assets





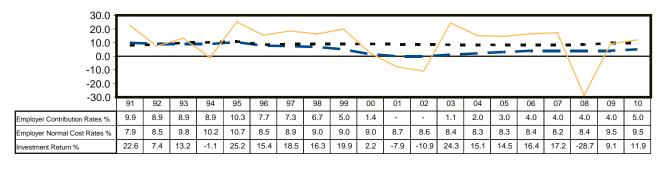
The active membership payroll has grown from \$4.6 billion in 2001, to \$5.6 billion in 2010.

With the investment return for 2010 of 11.9%, this marks 12 out of the last 16 years that the Fund's earnings not only have been positive but also have exceeded the actuarial assumed rate of return. The primary reason for the low employer Contribution Rate has been the Fund's overall positive investment returns. The benefits of reduced employer contributions pass directly back to the participating Commonwealth agencies and the taxpayers of Pennsylvania. For example, had the Commonwealth agencies paid the Employer Normal Cost over the last ten years, there would have been an additional \$3.1 billion in employer contributions paid into the System.

The Employer Normal Cost is the cost of future benefits that is allocated to the current year by the actuarial cost method. In theory, if the unfunded actuarial liability were zero, and there were no deviations from the actuarial assumptions or amendments to the Retirement Code, the Employer Normal Cost would be that amount required to fund the on-going liabilities for plan participants. The chart below presents the relationship between investment returns and Contribution Rates. When returns are strong and above the actuarial assumed rate, as they have been in 14 of the past 20 years, the employer's level of contributions may fall below the Employer Normal Cost. Conversely, when investment returns lag the actuarially assumed rate, those losses are amortized into the Fund through increased employer contributions.

In 2007, the System's ten-year annualized investment return was 10.1%. The significant losses in 2008 reduced the System's ten-year annualized investment return to 4.9% for 2008, 3.9% for 2009, and to 4.8% for 2010. As a result of the significant losses in 2008 and the rate-suppressing effect of Act 2003-40, the employer rate was

#### SERS Employer Contribution Rates, Employer Normal Cost Rates, and Investment Returns



- Employer Contribution Rates % - Employer Normal Cost Rates % - Investment Return %

expected to spike significantly in FY 2012/13. To address this rate spike Act 2010-120 was passed. See pages 7-8 for a summary of Act 120 provisions.

#### **Net Investment Income**

Investment portfolio performance produced investment returns of 11.9%, 9.1%, and negative 28.7%, for the years 2010, 2009, and 2008, respectively. Performance contributed to net investment income of approximately \$3.1 billion in 2010, \$3.6 billion in 2009, and a net loss of \$11.1 billion in 2008. Strong equity markets helped to fuel performance in 2010 and 2009, but in 2008 international equity performance was responsible for the largest losses. The MSCI World Index lost 40.7% in 2008 and the domestic Russell 3000 Index lost 37.3%. For the five, seven, and ten year periods ended December 31, 2010, the System earned compounded annual rates of return of 3.5%, 6.6%, and 4.8%, respectively. Below are the System's annual rates of returns for the last three years by major asset class/strategy:

#### **Annual Rates of Return**

Asset Class/Strategy	2010	2009	2008
Global Stock	18.2%	38.4%	-37.5%
U.S. Stock	18.0	26.4	-45.4
Non-U.S. Stock	13.5	40.9	-52.4
Absolute Return Strategies	6.3	13.7	-15.9
Fixed Income	11.7	31.9	-17.5
Cash/STIF	0.3	0.5	3.4
Real Estate	2.3	-29.3	-10.8
Private Equity	18.3	-5.7	-6.8
Venture Capital	8.3	-14.8	-0.2
Inflation Protection	19.9	24.3	-31.1
Total Fund	11.9%	9.1%	-28.7%

Investment expenses decreased \$25 million in 2010 as compared to a decrease of \$50 million in 2009. The most significant portion of investment expense is investment manager fees. The System's assets are managed 100% by external investment managers hired by the Board. Many of these managers are paid a fee based on the assets under management. Accordingly, those managers were generally compensated less in 2010 than in prior years because of a shift in asset allocation. However, the industry practice for the limited partnership investments is for the limited partners to pay fees to the general partner based on commitments to the partnership during the initial years. Manager fees related to alternative investments decreased in 2010 based on decreased commitments to new and continuing limited partnerships.

#### Benefits, Refunds and Expenses

Benefits are the most significant recurring deduction from plan net assets. During 2010, the System paid out approximately \$2.4 billion in benefits and refunds compared to \$2.3 billion for 2009. There were approximately 5,900 new retirees added to the Annuity payroll in 2010 with an average annual benefit of \$25,100. This was an increase from the 5,300 retirees added in 2009. These new retirees in 2010 retired with a much higher annual benefit than those removed from rolls. There were more than 3,800 retirees removed from the rolls with an average annual benefit of \$12,600. In 2010, supplemental payments increased 28.4%, from \$303 million in 2009 to \$389 million in 2010. This increase is attributable to increased death benefit payouts and withdrawals of accumulated contributions and interest from the System in 2010 as compared to 2009. Those withdrawals reduce the retirees' payments over their lifetime.

Benefit expenses increased in 2010; going forward the System expects benefit expenses to continue to steadily rise. This is attributable to the fact that the number of new retirees added to the rolls is expected to be about 50% higher than retirees removed from the rolls. Additionally, new retirees' monthly Annuity is approximately 100% higher than the Annuity of those being removed. The System was established in 1923 but did not pay more than \$1 billion in annual benefits until 1997. The System's annual benefit payments reached \$2 billion in 2007; based on recent actuarial projections, it will reach \$3 billion by 2014.

#### **Growth in Annuity Payroll**

	Dec. 2010	Dec. 2009	Dec. 2008	
Monthly Annuity Payroll	\$174 million	\$166 million	\$159 million	
Retirees	111,713	109,639	108,146	

The administrative costs of the System represented 0.1% of average net assets in 2010 and 2009. All costs were within budget.

#### **Plan Assets**

Investments are the most significant component of the System's assets. The fair value of investments increased to \$25.5 billion in 2010 from \$24.3 billion as of December 31, 2009. The \$1.2 billion increase in investments was primarily due to the investment gain of \$3.1 billion less benefit payments of \$2.4 billion in 2010.

The System values its assets at "fair value" as discussed in the accounting policies footnote 2(c) to the financial

# Financial Section Management's Discussion and Analysis As of December 31, 2010 and 2009

statements. Fair value is the value the System expects to receive in a current sale between a willing buyer and a willing seller that are equally motivated; that is, other than a forced or liquidation sale. The value of publicly traded securities, stocks and bonds are determined using the latest quote from national exchanges or pricing services. Those prices reflect the securities' pricing at the close of business and are affected by such items as liquidity, current events and the size of lots being traded.

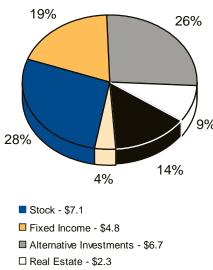
Real Estate is valued by the investment advisor using discounted cash flows, recent comparable sales, and current market conditions to arrive at a fair value. The Real Estate portfolios undergo an annual independent financial audit of the estimated fair values as well as an independent appraisal process on a routine cycle conducted by approved appraisers who meet specified professional qualifications. The appraisal process involves a significant amount of judgment and estimating. As a result, the ultimate value on sale of the asset may differ from the appraised value.

Values for alternative investments are determined by the general partners and by valuation committees. The partnerships' investments, as well as the assumptions and estimates used in developing the investment values, are subject to annual independent audits. Because the investments in those partnerships are generally illiquid and holding periods may last for several years, the ultimate value realized by the System on the disposition may differ from the estimated values reflected in the financial statements, and those differences could be material.

As of December 31, 2010, Absolute Return Strategies fair values were \$3.6 billion, a decrease of \$1.7 billion from December 31, 2009. This decrease, despite the positive return reported earlier, was due to the Fund reducing the exposure to Absolute Return Strategies by almost \$2.0 billion. Stock fair values of \$7.1 billion for December 31, 2010 represent an increase of \$1.0 billion from 2009. This increase is mainly from favorable market returns received. The Fixed Income fair values were \$4.8 billion which is an increase of \$0.4 billion from 2009. One manager was liquidated and two are in the process of liquidating. This money was used to fund three new managers. The Alternative Investments and Real Estate asset class fair values were \$6.7 billion and \$2.3 billion, respectively for December 31, 2010. This represents increases of \$0.7 billion for Alternative Investments and \$0.4 billion for Real Estate from 2009. These increases are a result of positive market returns for both Alternative Investments and Real Estate.

The total investment portfolio fair value of \$25.5 billion was comprised as shown by the chart below:

#### Investments at Fair Value (Dollar Amounts in Billions) As of December 31, 2010



■ Absolute Return Strategies - \$3.6
■ Short-term Investments - \$1.0

The System earns additional investment income by lending investment securities to brokers. The brokers provide collateral to the System for borrowed securities generally equal to 102% to 105% of the borrowed securities. The System invests the collateral to earn interest. Income, net of expenses, from securities lending is dependent on the volume of lending generated at the custodian bank and the spreads (profits) on those loaned securities. In 2008, certain securities purchased with cash collateral by the lending agent had values significantly less than amortized cost reflected on the custodian records. The loss to the System was approximately \$25 million in 2008 and was established as a liability in the financial statements. In 2010 this payable was reduced to \$15 million. Despite this loss, the System earned \$73 million over the last ten years. Since 2008, due to the increased risk associated with the market uncertainty, the securities lending program was scaled back in both the number of securities on loan and the market value of those securities for which cash collateral was provided. The pool's investment guidelines provide for investment of cash collateral in highly liquid, highly rated securities. As of December 31, 2010 and 2009, the fair value of loaned securities was \$283 million and \$564 million, respectively; the fair value of the associated collateral was \$294 million and \$586 million, of which \$293 million and \$392 million was cash, respectively.

#### **Derivatives**

Within narrowly prescribed policy guidelines, SERS permits investment advisors to use derivatives as a means to provide market exposure to various asset classes. Used properly, these derivatives deliver returns similar to indexed returns in the respective asset classes in a cost-efficient manner without disrupting the liquidity needs of the System. The System's investment advisors manage counterparty credit risk by entering into contracts with parties with strong credit ratings and by establishing collateral requirements. The System monitors derivative levels and types to ensure that portfolio derivatives are consistent with the intended purpose and at the appropriate level. SERS adopted Governmental Accounting Statement No. 53 during the year ended December 31, 2009. The objective of this statement is to enhance the usefulness and comparability of derivative instrument information reported by state and local governments.

#### Liquidity

The System's liquidity needs are met through member and employer contributions, earnings from investments, and its well diversified investment portfolio. At December 31, 2010, the Fund held over \$1.8 billion in core fixed income, high quality securities. The Fund also held over \$5.1 billion in highly liquid large cap equity securities. Investments in Real Estate and Alternative Investments are generally considered illiquid. Because of their characteristics, investments in emerging markets, high yield Fixed Income securities, and Absolute Return Strategies, are not considered a primary source of liquidity.

#### Pennsylvania Act 2010-120

On November 23, 2010, the Governor signed HB 2497 into law as PA Act 120. This legislation preserves all the benefits now in place for all current members but mandates a number of benefit reductions for future members effective January 1, 2011 (except that the effective date is the expiration of collective bargaining agreements for State Police Troopers, Capitol Police and Park Rangers, and December 1, 2010 for Legislators newly elected in November. State Police would retain the special retirement benefits they currently receive as a result of a collective bargaining arbitration).

All of the following benefit reductions are included in Act 120:

- Creates a new A-3 Class of Service for most future non-judicial employees entering SERS membership on or after January 1, 2011. As is the case with most current SERS members, the new A-3 members will contribute 6.25% of their pay toward their benefit; however, they will accrue benefits at only 2% of their Final Average Salary for each year of Credited Service (as opposed to the 2.5% accrual rate for most current members).
- Creates an optional new A-4 Class of Service for most future non-judicial employees entering SERS membership on or after January 1, 2011.
   New members who elect this Class of Service will contribute 9.3% of their pay toward their benefit in order to accrue benefits at the rate most members currently do, 2.5% of their Final Average Salary for each year of Credited Service. This higher benefit will be entirely funded through the higher employee contribution rate. There will be no additional cost to the employers.
- Increases the Vesting period for A-3 and A-4 members to ten years, as opposed to five years.
- Eliminates "Option 4" lump sum withdrawals of Accumulated Deductions for A-3 and A-4 members otherwise eligible to receive monthly benefits.
- Increases the Normal Retirement Age for Class A-3 and A-4 members. Normal retirement age for most members in the new classes will increase from age 60 to age 65 with a minimum of three years of Credited Service. For those members in the new classes in positions that had an age 50 Normal Retirement Age, Normal Retirement Age will increase to age 55 with a minimum of three years of Credited Service including law enforcement officers and Legislators. The special retirement terms provided to State Police Troopers under their arbitration award will continue in effect.
- Replaces the current 35-years-of-service superannuation provision with a Rule of 92 with 35 Minimum Years of Service provision. The "Rule of 92" portion of this new dual superannuation eligibility rule will be met when a member's age (last birthday) plus his/her completed years of credited service total at least 92. The effect of this provision

#### Financial Section Management's Discussion and Analysis As of December 31, 2010 and 2009

is to require that State employees entering the workforce at a very young age would have to work a few additional years before superannuating. (Upon meeting the superannuation thresholds, a member becomes eligible to retire before reaching Normal Retirement Age without incurring an Early Retirement Reduction.)

- Requires members who wish to purchase creditable nonstate service, other than intervening military or magisterial service, to pay the full actuarial cost of the increased benefit attributable to the purchase.
- Implements a "shared risk" provision that introduces the possibility of higher or lower member contribution rates for future members. Higher or lower member contribution rates could be triggered when annual investment returns over a multi-year period are higher or lower than the rate assumed for SERS' valuations. Member Contributions could never be lower than the base rates set in the Act of 6.25% for A-3 Class of Service or 9.3% for A-4 Class of Service.

The Act also includes the following key provisions affecting SERS funding, which are intended to moderate the steep spike in employer contribution rates that would otherwise occur:

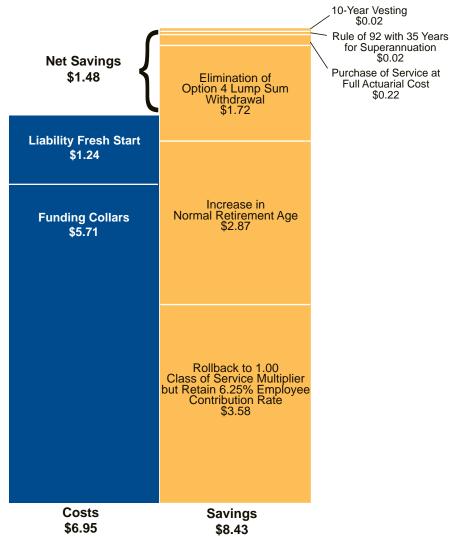
- Gradually increases funding through the use of collars that cap employer contribution rate increases. Increases are capped at:
  - 3.0% in FY 2011/12
  - 3.5% in FY 2012/13
  - 4.5% each year thereafter until no longer needed
- Re-amortizes the System's existing liabilities over 30 years through an Actuarial "Fresh Start."

In addition to the changes detailed earlier, the Act also prohibits the use of pension obligation bonds (POBs) for funding liabilities. POBs are bonds issued by a state or local government to pay its obligation to the pension fund.

SERS prepared a graph (below) that illustrates the fiscal impact of the various provisions of the Act.

#### Act 2010-120 Costs and Savings Compared to Prior Law Projected to FY 2043/44

(Dollar Amounts in billions)



#### **Condensed Financial Information**

(Dollar Amounts in Millions)

#### **Net Assets**

		Increase		Increase	
Assets:	2010	(Decrease)	2009	(Decrease)	2008
Total receivables	\$536	\$(8)	\$544	\$406	\$138
Total investments	25,503	1,207	24,296	1,531	22,765
Securities lending collateral pool	293	(99)	392	(288)	680
Total assets	26,332	1,100	25,232	1,649	23,583
Liabilities:					
Accounts payable and accrued expenses	48	1	47	(1)	48
Securities lending collateral pool payable	16	(3)	19	(6)	25
Investment purchases and other liabilities	89	(23)	112	78	34
Obligations under securities lending	293	(99)	392	(288)	680
Total liabilities	446	(124)	570	(217)	787
Total net assets	\$25,886	\$1,224	\$24,662	\$1,866	\$22,796

#### **Changes in Net Assets**

Additions:	2010	Increase (Decrease)	2009	Increase (Decrease)	2008
Member contributions	\$349	-	\$349	\$12	\$337
Employer contributions	273	\$20	253	18	235
Investment gain/(loss)	3,076	(485)	3,561	14,622	(11,061)
Total additions	3,698	(465)	4,163	14,652	(10,489)
Deductions:					
Benefits and refunds	2,449	176	2,273	69	2,204
Administrative expenses	25	1	24	(3)	27
Total deductions	2,474	177	2,297	66	2,231
Increase/(decrease) in net assets	\$1,224	\$(642)	\$1,866	\$14,586	\$(12,720)

# Statements of Plan Net Assets As of December 31, 2010 and 2009 (Dollar Amounts in Thousands)

	2010	2009
Assets:		
Receivables		
Plan members	\$1,988	\$3,497
Employers	11,887	9,310
Investment income	46,974	45,766
Investment proceeds and other receivables	462,830	470,747
Miscellaneous	11,824	14,480
Total receivables	535,503	543,800
Investments		
Short-term investments	951,575	470,403
United States government securities	1,335,123	1,485,843
Corporate and foreign bonds and notes	1,802,118	1,377,357
Common and preferred stocks	2,949,978	2,697,787
Collective trust funds	5,839,446	4,965,931
Fund of hedge funds	3,568,756	5,296,757
Real estate	2,361,712	2,003,911
Alternative investments	6,694,350	5,997,805
Total investments	25,503,058	24,295,794
Securities lending collateral pool	293,365	392,073
Total assets	26,331,926	25,231,667
Liabilities:		
Accounts payable and accrued expenses	48,399	46,783
Securities lending collateral pool payable	15,457	18,733
Investment purchases and other liabilities	88,603	112,129
Obligations under securities lending	293,365	392,073
Total liabilities	445,824	569,718
Net assets held in trust for pension benefits	\$25,886,102	\$24,661,949

These financial statements should only be read in connection with the accompanying notes to the financial statements.

#### Statements of Changes in Plan Net Assets For Years Ended December 31, 2010 and 2009 (Dollar Amounts in Thousands)

	2010	2009
Additions:		
Contributions		
Plan members	\$349,049	\$348,805
Employers	273,083	253,250
Total contributions	622,132	602,055
Investment gain		
Net appreciation in fair value of investments	2,211,065	2,456,209
Collective trust fund appreciation and income	810,147	1,063,673
Interest	146,995	149,040
Dividends	61,964	69,400
Real estate	73,355	73,561
Miscellaneous	6,471	3,499
	3,309,997	3,815,382
Investment expenses	(235,826)	(260,376)
Net gain from investing activities	3,074,171	3,555,006
From securities lending activities		
Securities lending income	2,511	7,092
Securities lending expenses	(272)	(572)
Net income from securities lending activities	2,239	6,520
Total net investment gain	3,076,410	3,561,526
Total additions	3,698,542	4,163,581
Deductions:		
Benefits	2,440,246	2,265,404
Refunds of contributions	9,007	7,968
Administrative expenses	25,136	24,073
Total deductions	2,474,389	2,297,445
Net increase	1,224,153	1,866,136
Net assets held in trust for pension benefits:		
Balance, beginning of year	24,661,949	22,795,813
Balance, end of year	\$25,886,102	\$24,661,949

These financial statements should only be read in connection with the accompanying notes to the financial statements.

Financial Section

Notes to Financial Statements

As of December 31, 2010 and 2009

(Dollar Amounts in Thousands)

## (1) Organization and Description of the System(a) Organization

The System was established as of June 27, 1923, under the provisions of Public Law 858, No. 331. The System was developed as an independent administrative agency of the Board which exercises control and management of the System, including the investment of its assets. The System's Board has eleven members including the State Treasurer (ex officio), two Senators, two members of the House of Representatives, and six members appointed by the Governor, one of whom is an Annuitant of the System. At least five board members must be Active Members of the System and at least two have ten or more years of Credited Service.

The System is the administrator of a cost-sharing multipleemployer defined benefit retirement plan established by the Commonwealth of Pennsylvania (Commonwealth) to provide pension benefits for employees of state government and certain independent agencies. The System is a component unit of the Commonwealth and is included in the Commonwealth's financial report as a pension trust fund. Administration costs are financed through contributions and investment earnings.

Membership in the System is mandatory for most state employees. Members and employees of the General Assembly, certain elected or appointed officials in the executive branch, department heads, and certain employees in the field of education are not required, but are given the option to participate. At December 31, 2010 and 2009, System membership consisted of:

#### **System Membership**

	2010	2009
Retirees and Beneficiaries currently receiving benefits	111,713	109,639
Terminated members entitled to benefits but not yet receiving them	6,326	6,190
Current Active Members	109,255	110,107
Total members	227,294	225,936
Number of participating agencies	106	106

#### (b) Pension Benefits

The System provides retirement, death, and disability benefits. Cost of Living Adjustments (COLA) are provided at the discretion of the General Assembly. Article II of the Commonwealth of Pennsylvania's Constitution assigns the

authority to establish and amend the benefit provision of the Plan to the General Assembly.

Normally, employees who retire at age 60 with three years of service, or with 35 years of service if under age 60, are entitled to a normal annual retirement benefit. Members of the General Assembly and certain employees classified in hazardous duty positions can retire with full benefits at age 50, with at least three years of service.

Most members of the System, and all state employees hired after June 30, 2001 and prior to January 1, 2011 (except State Police officers and certain members of the judiciary and Legislators), are Class AA members. The multiplier for Class AA is 1.25, which translates into an annual benefit of 2.5% of the member's highest three-year average salary times years of service and became effective for members July 1, 2001. The annual benefit for Class A members is 2% of the member's highest three-year average salary times years of service. State police are entitled to a benefit equal to a percentage of their highest annual salary, excluding their year of retirement. The benefit is 75% of salary for 25 or more years of service and 50% of salary for 20-24 years of service. Judges are entitled to a benefit of 4% of Final Average Salary for each of the first ten years of service and 3% for subsequent years. District Judges are entitled to a benefit of 3% of Final Average Salary for each year of service. Act 2001-9 also created a new Class of Service for Legislators, Class D-4. The multiplier for Class D-4 is 1.5, which translates into an annual benefit of 3% of the Final Average Salary for each year of service. Most members vest with five years of Credited Service.

According to the Retirement Code, all obligations of the System will be assumed by the Commonwealth should the System terminate.

#### (c) Contributions

The System's funding policy, as set by the Board, provides for periodic active member contributions at statutory rates. The System's funding policy also provides for periodic employer contributions at actuarially-determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. A variation of the entry-age normal actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits, including superannuation,

withdrawal, death, and disability benefits, and to determine employer contribution rates. The significant difference between the method used for the System and the typical entry-age normal actuarial cost method is that the Employer Normal Cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. The System believes that this variation should produce approximately the same results as the typical method over the long run. These rates are computed based upon actuarial valuations on the System's fiscal year end of December 31 and applied to the Commonwealth based on its fiscal year end June 30; therefore, the employer Contribution Rates, in effect for the System's year-end of December 31, reflect a blended average of calculated rates. The blended contribution rates were as follows:

#### **Blended Contribution Rates**

	2010	2009
Employer Normal Cost	9.52%	8.97%
Amortization of unfunded actuarial assets in excess of liabilities	-9.56	-12.59
Amortization of supplemental annuities	4.67	4.87
Minimum rate factor	-0.13	2.79
Total employer cost	4.50%	4.04%

In addition to the Employer Normal Cost, the total employer cost includes other costs and credits resulting from COLA differences between actual investment results and actuarial estimated returns, and changes in benefits. These additional costs and credits are amortized over a period of future years as set by the Legislature. Act 2003-40 (Act 40) revised the amortization periods of these additional costs and credits to the following amortization periods:

#### **Act 40 Amortization Periods**

Pre-Act 2001-9 funding credit	10 years
Act 2001-9 liability	30 years
Post 2000 gains and losses	30 years
Existing and future COLAs	10 years

Act 2010-120 established a Fresh Start amortization of the December 31, 2009 unfunded liability over a 30-year period beginning July 1, 2010 and ending June 30, 2040.

The general membership Contribution Rate for all Class A and Class AA members is 5% and 6.25% of salary, respectively. The Contribution Rate for Class D-4 members is 7.5%. Judges and District Judges have the option of electing special membership classes requiring a contribution of 10% and 7.5%, respectively. All employee contributions are recorded in an individually identified account that is credited with interest, calculated at 4% per annum, as mandated by statute. Accumulated employee contributions and Credited Interest vest immediately and are returned to the employee upon termination of service if the employee is not eligible for other benefits.

#### (d) Benefits Completion Plan

Act 2002-234 amended the State Employees' Retirement Code by adding Section 5941 to the Code. Section 5941 directs the Board to establish and serve as trustee of a retirement benefit plan that is in conformity with Internal Revenue Code (IRC) Section 415(m), the Benefits Completion Plan (BCP). The BCP is a separate trust fund established to provide benefits to all Annuitants of the System's Defined Benefit Plan and their Survivor Annuitants and Beneficiaries whose retirement benefit exceeds the IRC Section 415(b) limits.

The BCP is funded on an ongoing basis. A monthly Annuity or Death Benefit is paid under the BCP only if a corresponding monthly Annuity or Death Benefit is paid from the Defined Benefit Plan to the extent permitted by IRC Section 415(b) and the Retirement Code. There were 21 and 18 members receiving benefits from the BCP at December 31, 2010 and 2009, respectively.

## (2) Summary of Significant Accounting Policies(a) Basis of Accounting

The financial statements of the System are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date. Member and employer contributions are based on when member salaries are earned and are recognized when due, pursuant to statutory requirements and formal commitments. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

#### (b) Use of Estimates

Management of the System has made certain estimates

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and assumptions relating to the reporting of assets and liabilities, and the disclosure of contingent assets and liabilities, to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates.

Investments in venture capital, alternative investments, and real estate are generally illiquid. Because of the inherent uncertainty in valuing privately held securities, the fair value may differ from the values that would have been used had a ready market for such securities existed, and the difference can be material. Accordingly, the realized value received upon the sale of the asset may differ from the fair value.

#### (c) Investments

The System's investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller — that is, other than in a forced or liquidation sale. The investments in shortterm investment funds, including those managed by the Treasurer of the Commonwealth of Pennsylvania, are reported at cost plus allocated interest, which approximates fair value. The securities lending collateral pool, which is a fund operated by the securities lending agent, also is accounted for at cost plus accrued interest, which approximates fair value. U.S. government securities, corporate and foreign bonds and notes, common and preferred stocks, and the underlying holdings in fundsof-hedge funds, are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Securities that are not traded on a national security exchange are valued by the asset manager or third parties based on similar sales. Foreign exchange and futures contracts are markedto-market daily with changes in fair value recognized as part of investments and investment income. Real estate investments, which are subject to annual independent audits, are primarily valued based on independent appraisals. Properties that have not been appraised are valued using the present value of the projected future net income stream. Alternative investments, which are subject to an annual independent audit, include interests in limited partnerships invested in venture capital, leveraged buyouts, private equities, and other investments, are valued based on estimated fair value established by valuation committees.

The collective trust funds (CTF) consist primarily of domestic and international institutional mutual and index funds. The funds do not pay interest or dividends to shareholders, and reinvest all income earned on securities held by the fund. The fair value of the CTF is based on the reported share value of the respective fund. The CTF is subject to annual independent audit.

Unsettled investment sales are reported as investment proceeds receivable and unsettled investment purchases are reported as investment purchases payable. Investment expenses consist of investment managers' fees and those expenses directly related to the System's investment operations.

#### (d) Commitments

As of December 31, 2010 and 2009, the System had contractual commitments totaling approximately \$2.3 billion and \$3.0 billion, respectively, to fund future alternative investments, and \$203 million and \$354 million, respectively, to fund future real estate investments.

#### (e) Compensated Absences

The System accrues a liability for vacation leave as the benefits are earned by the employees to the extent the System will compensate the employee for the benefits through paid time off or some other means, such as cash payments at termination or retirement. Vacation leave vests 100% at the time it is earned up to 45 days, which is carried over to the next year at December 31. The System also accrues a liability for sick leave as the benefits are earned by the employees to the extent the System will compensate the employee for the benefits through cash payments at termination or retirement. Retiring employees of the System that meet service, age, or disability requirements are paid between 30% and 100% of sick days available at retirement, up to 163 maximum days. As of December 31, 2010 and 2009, \$2.9 million and \$3.0 million, respectively, were accrued for unused vacation and sick leave for System employees.

#### (f) Federal Income Taxes

Management believes the System meets the definition of a Governmental Plan. In the System's communications with the Internal Revenue Service (IRS), it has been treated as a qualified plan, and is, therefore, considered exempt from federal income taxes. The System has, however, requested a determination letter from the IRS relating to the status of the System under the IRC.

#### (g) Risk Management

The System is exposed to various liabilities and risks of loss related to theft or destruction of assets, injuries to employees, and court challenges to fiduciary decisions. As an administrative agency of the Commonwealth, the System is accorded sovereign immunity. The System participates in certain Commonwealth pooled insurance programs and requires asset managers to carry certain insurance coverage. The System is self-insured for fiduciary and director and officer liability. During the past three fiscal years, SERS' insurance settlements did not exceed insurance coverage.

#### (h) New Accounting Standards

In June 2008, the Governmental Accounting Standards Board issued Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* (GASB 53). GASB 53 provides a comprehensive framework for the measurement, recognition, and disclosure of derivative instrument transactions. It also enhances the usefulness and comparability of derivative instrument information reported by state and local governments. The System adopted GASB 53 during the year ended December 31, 2009.

#### (3) Description of Accounts

The Retirement Code requires the System to maintain the following accounts representing the net assets held for future and current benefit payments:

The **Member Savings Account** accumulates contributions and interest earnings of active employees. Member balances are transferred to the Annuity Reserve Accounts as members retire.

The **State Accumulation Account** accumulates contributions of the employer and the net earnings of the Fund. Funds are transferred to the Annuity Reserve Accounts as members retire. The amount transferred is actuarially determined.

The **Supplemental Annuity Account** accumulates contributions for supplemental annuities. The negative balance in 2009 represents the liability for past cost of living adjustments that are being amortized to actuarial required contributions. The balance in this account is actuarially determined.

The **Annuity Reserve Accounts** are the accounts from which all death and retirement benefits and supplemental annuities are paid. The balances in these accounts are actuarially determined.

The Interest Reserve Account accumulates all income earned by the Fund and from which all administrative and investment expenses incurred by the Fund and the Board necessary for operation of the System are paid. Any balance in this reserve is transferred to the State Accumulation Account at year-end.

The Benefits Completion Plan (BCP) Reserve Account accumulates all BCP employer contributions and net earnings of the Fund less any benefits paid out of the Fund.

Account balances at December 31, 2010 and 2009 are as follows:

#### **Account Balances**

	2010	2009
Members Savings Account	\$4,409,444	\$4,280,680
State Accumulation Account	2,739,534	3,261,104
Supplemental Annuity Account	-	(604,858)
Annuity Reserve Accounts:		
Annuitants and Beneficiaries	17,080,448	16,129,137
State Police	1,607,385	1,546,571
<b>Enforcement Officers</b>	42,569	42,076
Benefits Completion Plan		
Reserve Account	6,722	7,239
Total	\$25,886,102	\$24,661,949

#### (4) Investments

As provided by statute, the Board has exclusive control and management responsibility of System funds and full power to invest the funds. In exercising its fiduciary responsibility to System membership, the Board is governed by the "prudent investor" rule in establishing investment policy. The "prudent investor" rule, requires the exercise of that degree of judgment, skill and care under the circumstances then prevailing which investors of prudence, discretion and intelligence, who are familiar with such matters, exercise in the management of their own affairs not in regard to speculation, but in regard to permanent disposition of the funds, considering the probable income to be derived there from, as well as the probable safety of their capital.

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The Board has adopted its *Statement of Investment Policy* to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of the System.

The System's investments are subject to various risks. Among these risks are custodial credit risk, credit risk, interest rate risk, and foreign currency risk. Each one of these risks is discussed in more detail below.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Pursuant to Title 71, Pennsylvania Consolidated Statutes Section 5931 [c], the State Treasurer serves as custodian of the Fund. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments, where securities are used as evidence of the investment, are held by the custodian in book-entry form in the System's name. Those investments are defined as insured or registered investments for which the securities are held by the System or its agent and, therefore, have very minimal level of custodial credit risk losses. All remaining investments do not have securities that are used as evidence of the investments. These investments are primarily in collective trust funds and limited partnerships, which include real estate, alternative investments, and absolute return fundsof-funds.

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating agencies such as Moody's Investors Services (Moody's), Standard & Poor's, and Fitch Ratings (Fitch). In December of 2009 the Board approved the SERS 2010 Annual Strategic Investment Plan. This plan manages the overall credit risk of the fixed income asset class through a clearly defined asset allocation policy which established a target allocation to the fixed income asset class of 32.5% of the Fund. Of the 32.5% allocation, 15.5% of the Fund will be allocated to a core segment of the fixed income asset class and composed of investment

grade, relatively liquid public domestic securities. These securities will be comprised of two components: 1) a dedicated portfolio of Treasury inflation-protection securities (TIPS) that are designed to capture unanticipated changes in inflation, and 2) Treasury and credit strategies based on the Barclays Capital Aggregate Bond Index. In addition to the core segment, the System will also allocate fixed income investments to a high yield segment. The high yield segment is composed primarily of less liquid, public and private securities and has a target allocation of 4% of the Fund. The high yield component will focus on debt instruments offering higher return premiums and different risk characteristics than traditional core fixed income securities. The fixed income class also has dedicated a 5% allocation of the Fund to international fixed income, a 4% allocation to TIPS, and a 4% allocation to emerging market debt. Emerging market debt investments are made using dollar denominated sovereign debt as well as local currency sovereign and corporate debt. For securities exposed to credit risk in the fixed income portfolio, Table 1 on the following page discloses aggregate fair value, by the least favorable credit rating issued using Moody's, Standard & Poor's, and Fitch credit ratings at December 31, 2010 and 2009.

U.S. Treasuries with a fair value of \$1.3 billion and \$1.4 billion as of December 31, 2010 and 2009 respectively, were not included in Table 1 on the following page because they are not subject to credit risk.

Interest rate risk is the risk of interest rate changes adversely affecting the fair value of an investment. As a means for limiting the System's exposure to fair value losses arising from rising interest rates, the System's long-term asset allocation policy diversifies its fixed income core segment between intermediate duration and longer duration strategies based on the Barclays Capital Aggregate Index. Duration is a measure of an investment's sensitivity to changes in interest rates. The higher the duration, the greater the changes in fair value when interest rates change. The System measures interest rate risk using optionadjusted duration, which considers the effect of a security's embedded options on cash flows. At December 31, 2010 and 2009, the System's Fixed Income portfolio had the optionadjusted durations by debt sector as listed in Table 2.

Table 1
Debt Securities Exposed to Credit Risk

Rating <sup>1/</sup>	2010 Fair Value	2009 Fair Value
AGY <sup>2/</sup>	\$38,216	\$57,199
AAA	31,306	31,526
AA	56,135	31,908
A	188,147	135,619
BAA	443,208	341,275
BA	354,211	317,332
В	452,252	295,189
CAA	174,065	99,523
CA	14,202	20,114
C	10,580	9,213
D	9,258	19,036
NA <sup>3/</sup>	88,851	82,964
STIF <sup>4/</sup>	932,783	457,622
Total	\$2,793,214	\$1,898,520

- <sup>1</sup>/ The rating represents all of the securities that fall within Moody's equivalent subcategories of the ratings shown in this table. For example, a security with a rating of Ba1 is shown as a rating of BA in this table.
- <sup>27</sup> AGY rating is assigned to securities issued by privately owned government sponsored enterprises (GSEs) such as Federal National Mortgage Association (Fannie Mae), Federal Home Loan Bank Corporation (Freddie Mac) and several others entities that do not have a rating. Through recent capital injections by the U.S. government, GSEs have an implied guarantee but are still subject to credit risk.
- 3/ NA represents securities that were either not rated or had a withdrawn rating. NA also includes the fair value of certain swaps, which by nature do not have credit quality ratings. See Note 6 for additional information regarding the nature of these swap agreements.
- <sup>4</sup> Represents investments in the Commonwealth Treasury Department's Short-Term Investment Fund (STIF). This fund is comprised of short-term, investment grade securities, which are mainly U.S. Treasuries, agencies, or repurchase agreements.

Table 2
Debt Option-Adjusted Durations

	20	2010		09
Sector	Fair Value	Option- Adjusted Duration	Fair Value	Option- Adjusted Duration
Agencies	\$141,688	4.2	\$17,023	1.5
Asset Backed Securities	49,484	1.1	8,810	2.7
Corporates	693,812	4.8	649,842	3.6
Government	1,159,131	2.4	1,432,032	2.3
Sovereign Debt	396,334	6.4	384,975	4.9
Mortgage Backed Securities	132,329	3.0	101,889	2.4
U.S. Private Placements <sup>1/</sup>	532,139	3.4	260,932	2.5
STIF	932,783	0.1	457,622	0.1
Other Investments <sup>2/</sup>	51,116	N/A	20,478	N/A
Total	\$4,088,816		\$3,333,603	

<sup>&</sup>lt;sup>1/</sup> Private placements raise capital via offerings directly to qualified investors rather than through public offerings. Private placements do not have to register with the Securities and Exchange Commission if the securities are purchased for investment as opposed to resale. These private placements have exposure to various fixed income securities.

<sup>&</sup>lt;sup>2/</sup> Other Investments represents certain securities with maturities ranging through the year 2019, and the value of swap agreements as of December 31.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. As part of the System's program to manage risk and enhance

returns, the System invests in global markets. At December 31, 2010 and 2009, the System had the currency exposures listed in the below tables.

#### **Foreign Currency Exposures 2010**

	Short Term	Fixed			Alternative	
Currency	Investments <sup>1/</sup>	Income	Stock	Real Estate	Investments	Total
Euro Currency Unit	\$2,604	\$5,879	\$437,097	\$17,759	\$495,161	\$958,500
British Pound Sterling	812	-	329,393	14,657	-	344,862
Japanese Yen	(298)	1,216	294,063	37,426	-	332,407
Hong Kong Dollar	(145)	-	204,074	36,803	210	240,942
Swiss Franc	1,535	-	147,800	1,782	-	151,117
Australian Dollar	(383)	-	75,896	26,939	-	102,452
Brazil Real	2,171	25,157	34,739	-	-	62,067
South Korean Won	30	-	59,483	-	-	59,513
Singapore Dollar	(53)	-	37,508	16,021	-	53,476
New Taiwan Dollar	1,013	-	36,087	-	-	37,100
S African Comm Rand	1,059	16,530	17,854	-	-	35,443
Mexican New Peso	626	22,554	10,139	-	-	33,319
Canadian Dollar	86	6,333	20,906	5,553	-	32,878
Indian Rupee	162	-	31,195	-	-	31,357
Indonesian Rupian	1,103	17,442	12,439	-	-	30,984
Swedish Krona	(340)	-	19,585	2,064	6,364	27,673
Norwegian Krone	(330)	-	22,457	900	-	23,027
Polish Zloty	664	18,849	2,350	-	-	21,863
Danish Krone	143	-	20,759	-	-	20,902
Thailand Baht	486	12,203	7,403	-	-	20,092
Other Currencies (15)	2,038	37,663	32,069		2	71,772
Total	\$12,983	\$163,826	\$1,853,296	\$159,904	\$501,737	\$2,691,746

#### Foreign Currency Exposures 2009

	<b>Short Term</b>	Fixed			Alternative	
Currency	Investments <sup>1/</sup>	Income	Stock	<b>Real Estate</b>	Investments	Total
Euro Currency Unit	\$158	\$5,456	\$462,147	\$22,184	\$358,591	\$848,536
British Pound Sterling	1,079	646	321,891	19,199	-	342,815
Japanese Yen	765	4,700	243,453	31,671	-	280,589
Hong Kong Dollar	(55)	-	138,365	36,693	-	175,003
Swiss Franc	3,168	-	141,109	1,996	-	146,273
Australian Dollar	57	-	39,507	25,729	-	65,293
Brazil Real	268	29,167	26,537	3,231	-	59,203
South Korean Won	112	-	47,448	-	-	47,560
Singapore Dollar	1,171	-	36,575	7,207	-	44,953
New Taiwan Dollar	52	-	35,653	-	-	35,705
Mexican New Peso	655	21,893	5,304	-	-	27,852
S African Comm Rand	542	14,303	12,642	-	-	27,487
Swedish Krona	-	-	23,099	1,068	2,955	27,122
Indian Rupee	24	-	24,007	-	-	24,031
Indonesian Rupian	600	14,426	7,960	-	-	22,986
Danish Krone	67	-	20,646	-	-	20,713
Norwegian Krone	1	-	15,295	2,636	-	17,932
Thailand Baht	458	8,610	7,201	-	-	16,269
Polish Zloty	370	13,554	1,666	-	-	15,590
Canadian Dollar	71	4,272	7,960	2,812	-	15,115
Other Currencies (16)	1,951	32,349	31,914	-	1	66,215
Total	\$11,514	\$149,376	1,650,379	\$154,426	\$361,547	\$2,327,242

<sup>&</sup>lt;sup>1</sup>/Includes receivables and payables as of December 31, for securities sold and purchased.

#### (5) Securities Lending

In accordance with a contract between the Commonwealth's Treasurer and its custodian, the System participates in a securities lending program.

The custodian, acting as lending agent, lends the System's equity, debt, and money market securities for cash, securities, or letter-of-credit collateral. Collateral is required at 102% of the fair value of the securities loaned except for the equity securities of non-U.S. corporations, for which collateral of 105% is required. Collateral is marked-to-market daily. If the collateral falls below guidelines for the fair value of the securities loaned, additional collateral is obtained. Cash collateral is invested by the lending agent in accordance with investment guidelines approved by the Board. The lending agent cannot pledge or sell securities collateral unless the borrower defaults.

As of December 31, 2010 and 2009, the System's credit exposure to individual borrowers was limited because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. The Treasurer's contract with the lending agent requires the agent to indemnify the System if the borrowers fail to return the underlying securities and the collateral is inadequate to replace the loaned securities or if the borrowers fail to pay income distributions on the loaned securities.

All loaned securities at December 31, 2010 and 2009 could be terminated on demand by either the lending agent or the borrower. Cash collateral is invested in a short-term collective investment pool. The duration of the investments in the pool at December 31, 2010 and 2009 was four days and 21 days, respectively. Interest rate risk may be posed by mismatched maturities and could be affected by other program features, such as the lending agent's ability to reallocate loaned securities among all of its lending customers.

In 2008, certain securities purchased with cash collateral by the lending agent, had values at levels significantly less

than amortized cost reflected on the custodian records. The loss to the System was approximately \$25 million and is reflected as a liability in the financial statements. Subsequent securities lending income is being used to repay the liability. The balance at December 31, 2010 is \$15 million.

As of December 31, 2010 and 2009, the fair value of loaned securities was \$283 million and \$564 million, respectively; the fair value of the associated collateral was \$294 million and \$586 million, of which \$293 million and \$392 million was cash, respectively.

## (6) Derivative and Structured Financial Instruments and Restricted Assets

Within narrowly prescribed guidelines, SERS permits investment advisors to enter into certain derivative and structured financial instruments primarily to enhance the performance and reduce the volatility of its portfolio. Typically, investment advisors enter into foreign exchange contracts to make payment for international investments, futures contracts to gain exposure to certain equity markets and to manage interest rate risk, and swaps to gain equity exposure.

Foreign exchange contracts are agreements to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. The investment advisor uses these contracts primarily for its international investments to settle pending trades that occur more than two business days after trade date. To reduce the risk of counterparty nonperformance, the investment advisors generally enter into these contracts with institutions regarded as meeting high standards of credit worthiness. The unrealized gain/(loss) on contracts is included in the System's net assets and represents the fair value of the contracts on December 31. At December 31, 2010 and 2009, the System's contracts to purchase and sell by foreign currencies were as shown on the next page.

# Foreign Exchange Contracts Contracts as of December 31, 2010

		Unrealized		Unrealized
Currency	Purchases	Gain/(Loss)	Sells	Gain/(Loss)
Chinese Yuan Renminbi	\$15,704	\$233	\$5,966	\$(80)
Euro Currency Unit	13,224	287	10,576	(117)
Malaysian Ringgit	12,894	163	430	-
Mexican New Peso	8,805	324	8,594	(70)
Hong Kong Dollar	5,171	(4)	2,459	-
New Turkish Lira	4,989	(240)	568	37
South Korean Won	4,710	(18)	100	(3)
Singapore Dollar	4,377	140	1,534	(63)
Columbian Peso	4,339	34	8,017	332
Russian Rubel (New)	3,226	26	-	-
Philippines Peso	2,473	27	21	-
Hungarian Forint	1,940	(16)	3,065	(92)
Chilean Peso	1,894	73	3,639	(175)
Peruvian Nuevo Sol	1,628	(14)	1,153	(13)
Japanese Yen	1,033	5	39,087	(1,518)
Australian Dollar	764	5	10,737	(738)
Brazil Real	441	19	7,581	(110)
S African Comm Rand	398	19	5,083	(239)
Indonesian Rupian	311	2	1,959	(9)
Polish Zloty	216	10	6,634	197
Swiss Franc	-	-	15,328	(1,250)
Other (5)	2,074	43	1,005	(22)
Total	\$90,611	\$1,118	\$133,536	\$(3,933)

#### Contracts as of December 31, 2009

		Unrealized		Unrealized
Currency	Purchases	Gain/(Loss)	Sells	Gain/(Loss)
Euro Currency Unit	\$45,836	\$(847)	\$25,328	\$572
Malaysian Ringgit	10,847	292	229	1
Chinese Yuan Renminbi	9,944	(50)	3,577	24
New Turkish Lira	5,670	(97)	-	-
Indonesian Rupian	4,253	139	3,412	(67)
Brazil Real	3,991	113	7,867	(493)
Mexican New Peso	3,980	-	1,815	36
Hungarian Forint	3,650	38	2,963	51
South Korean Won	3,616	21	241	(1)
Philippines Peso	3,366	13	1,316	(16)
Polish Zloty	2,741	37	2,469	55
Thailand Baht	1,734	4	-	-
Chilean Peso	1,379	107	850	15
Singapore Dollar	1,197	(15)	1,133	14
Japanese Yen	785	(11)	12,803	324
British Pound Sterling	578	(2)	29,357	201
Other (9)	1,579	(5)	14,874	(199)
Total	\$105,146	\$(263)	\$108,234	\$517

Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Due to daily settlement, the futures contracts have no fair value.

The investment advisors have entered into certain futures contracts maturing through December 17, 2012. The notional value of these contracts at December 31, 2010 and 2009 is listed in the Futures Contracts table.

Counterparty risk is defined as the risk that the counterparty will not perform according to its contractual obligation. The exchange on which futures contracts are traded assumes the counterparty risk and generally requires margin payments to minimize such risk. The investment advisors pledge investment securities to provide the initial margin requirements on the futures contracts it buys.

Swap agreements provide periodic payments between parties based on the change in value of underlying assets, indexes, rates and credit worthiness. The System uses contracts with multiple counterparties as well as collateral posting requirements to manage its counterparty credit risk. Credit default swaps are agreements with counterparties to either purchase or sell credit protection.

The System's advisors use credit default swaps to either increase or decrease credit exposure to certain credit markets. Interest rate swaps are over-the-counter contracts that allow counterparties to exchange a fixed rate liability for a floating rate liability. The System's advisors use interest rate swaps as a cost-effective way of gaining exposure to certain sectors of the fixed income market.

The Swap Exposure table presents swap exposure at December 31.

The System mitigates its legal risk on investment holdings, including the previously discussed instruments, by carefully selecting investment advisors and extensively reviewing their documentation. It manages its exposure to market risk within risk limits set by management.

The System's advisors also indirectly hold foreign exchange contracts, futures contracts, and certain swap contracts through its investments in collective trust funds and absolute return funds-of-hedge funds. These funds invest in the instruments directly, and indirectly through a securities lending collateral pool, to gain foreign exchange exposure, to synthetically create equity-like returns, and to manage interest rate risk by altering the average life of the portfolio.

#### **Futures Contracts**

	20	)10	2009		
	<b>Buy Contracts</b>	Sell Contracts	<b>Buy Contracts</b>	Sell Contracts	
Eurodollar Futures	\$22,098	-	\$50,466	-	

#### **Swap Exposure**

511dp 2/p55di 5	Notiona	al Value	Receivable/(Payable)		
	2010	2009	2010	2009	
Interest Rate	\$144,253	\$44,165	\$292	\$(107)	
Credit Default	30,300	22,500	161	(95)	

#### **Derivative Instruments**

	Changes in Fair Value		Fair Value at		
	Classification	Gain/(Loss)	Classification	Amount	Notional
Investment derivatives:					
Futures contracts - long	Investment revenue	\$165	Investment	\$165	\$22,098
Swaps - credit default	Investment revenue	246	Investment	161	30,300
Swaps - interest rate	Investment revenue	544	Investment	292	144,253
	Changes in Fair Value		Fair Value at 12/31/2009		
	Changes in Fa	ir Value	Fair Value at	12/31/2009	
	Changes in Fa	Gain/(Loss)	Fair Value at :  Classification	12/31/2009 Amount	Notional
Investment derivatives:			-		Notional
Investment derivatives: Futures contracts - long			-		Notional \$50,466
	Classification	Gain/(Loss)	Classification	Amount	

The System's advisors utilize investment derivative instruments for the purpose of obtaining income or profit. The derivatives are subject to credit risk, interest rate risk, and foreign currency risk. The fair value balances and notional amounts of derivative instruments outstanding at December 31, 2010, classified by type and the changes in fair value of such derivative instruments for the year then ended as reported in the 2010 and 2009 financial statements are shown in the above table.

Credit risk is the risk that the counterparty will not fulfill its obligations of an investment. Credit risk is measured by nationally recognized agencies such as Moody's, Standard & Poor's and Fitch. The System's policy of requiring collateral or other security to support derivatives is a hard dollar collateral threshold of \$25 million for all its counterparties. The types of eligible collateral and valuations for each type vary from counterparty to counterparty, but range within a percentage point or two as follows: (A) Cash, 100% (B) Negotiable debt obligations issued by the U.S. Treasury Department having a maturity at issuance of not more than one year, 99% (C) Negotiable debt obligations issued by the U.S. Treasury Department having a maturity at issuance of more than one year but not more than ten years, 98% (D) Negotiable debt obligations issued by the U.S. Treasury Department having a maturity at issuance of more than ten years, 97% (E) Negotiable debt obligations which are rated AAA by Moody's and by S&P and are fully guaranteed as to both principal and interest by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation that are not pass-through, multiclass or multi-branch securities or paying interest only or principal only, 95% (F) Federal National Mortgage Association, Government National Mortgage Association, or the Federal Home Loan Mortgage Corporation passthrough securities that are not (a) multi-class or multibranch securities, paying interest only or principal only, or (b) Collateralized Mortgage Obligations, 92% (G) Any other item agreed upon in writing from time to time by the parties. Advisors acting on behalf of SERS typically have access to collateral at anytime since the collateral is invested in highly liquid investments. SERS does not permit master netting across accounts. For derivatives exposed to credit risk, the table below discloses aggregate fair value by the least favorable credit rating using Moody's, Standard and Poor's, and Fitch credit ratings at December 31, 2010 and 2009. In 2010, there is a futures contract with a fair value of \$165,000 that is not included in the Derivatives Exposed to Counterparty Credit Risk table below. This is due to the risk being assumed by the exchange that minimizes risk by requiring margin payments and the broker did not send the margin call by year end but it was settled on January 4, 2011.

#### **Derivatives Exposed to Counterparty Credit Risk**

	2010	2009
Rating <sup>1/</sup>	Fair Value	Fair Value
A	\$453	\$(202)

<sup>&</sup>lt;sup>1</sup> The rating represents all of the securities that fall within Moody's equivalent subcategories of the ratings shown in this table. For example, a security with a rating of A1 is shown as a rating of A in this table.

#### **Derivative Durations**

_	2010		2009	
Sector	Fair Value	Option-Adjusted Duration	Fair Value	Option-Adjusted Duration
Futures	\$165	0.2	\$246	0.3
Interest Rate Swaps	292	2.9	(107)	5.3
Total	\$457		\$139	

Interest rate risk is the risk of interest rate changes adversely affecting the fair value of an investment. Duration is used to measure the sensitivity of an investment to changes in interest rates. In the above table, the System measures interest rate risk using optionadjusted duration at December 31, 2010 and 2009.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. At December 31, 2010 and 2009, the System had the foreign currency exposures listed in the below table.

#### **Foreign Currency Exposures - Interest Rate Swaps**

Currency	2010	2009
Brazil Real	\$257	\$68
Mexican New Peso	251	(5)
Polish Zloty	(4)	-
Thailand Baht	(30)	-
Malaysian Ringgit	(182)	(170)
Total	\$292	\$(107)

#### (7) Commission Recapture Program

The System has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investments directly to the System. During the years ended December 31, 2010 and 2009, the System earned \$97 thousand and \$95 thousand of benefits resulting from a commission recapture program, respectively. No expenditures were paid from the program in either year. At December 31, 2010 and 2009, the System has accumulated \$3.8 million and \$3.7 million, respectively that are available for future expenditures.

# (8) Postretirement Benefits for Employees of the System

The System makes employer contributions to the pension plan. The System's employees' contribution requirements and benefits are described in Note 1 to these financial statements. The System also participates in the

Commonwealth of Pennsylvania Office of Administration's (OA) Retired Employees Health Program (REHP). The REHP is a single-employer plan and provides certain healthcare benefits to qualifying individuals meeting specified age and/or service requirements. The OA, in its sole discretion, determines available REHP benefits on an ongoing basis.

The REHP is administered through the Pennsylvania Employees' Benefit Trust Fund (PEBTF) as a third-party administrator for the Commonwealth. During 2010, SERS funded REHP benefits by paying \$200 per pay period for each active SERS employee. The Commonwealth's latest actuarial valuation, dated October 2009, provides an Annual Required Contribution (ARC) for the REHP amounting to \$850.4 million for the Commonwealth's Fiscal Year ended June 30, 2010; the System's allocated portion of the total REHP ARC was \$2.3 million. The Commonwealth's current actuarial valuation was not complete at time of print. When complete, the entire valuation report will be available at the Office of the Budget's website at: <a href="http://www.budget.state.pa.us/portal/server.pt/community/financial\_reports/4574">http://www.budget.state.pa.us/portal/server.pt/community/financial\_reports/4574</a>.

#### (9) Litigation and Contingencies

The System is involved in various individual lawsuits, generally related to benefit payments, which, if settled adversely, could increase estimated actuarial liabilities by approximately \$1 billion. Some of the individual cases involve legal issues that, if extended to the entire membership, may result in significant costs to the System. If such an event were to occur, the additional costs would be recovered by the System through adjustments to the employer Contribution Rate.

# (10) Additional Pension Disclosures(a) Plan Description

The System is the administrator of a cost-sharing multiple-employer defined benefit pension plan. The System provides retirement, death, and disability benefits. COLAs are provided at the discretion of the General

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Assembly. The System was developed as an independent administrative agency of the Board which exercises control and management of the System, including the investment of its assets. The System issues a publicly available financial report that includes financial statements and RSI.

The System investments are reported at fair value as discussed in Note 2 (c) Summary of Significant Accounting Policies. The ARC is actuarially determined. For 2010, there is no maximum annual Contribution Rate; however the minimum has been set at 5% through Act 2010-46.

#### (b) Funding Status and Funding Progress

As of December 31, 2010, the most recent actuarial valuation date, the Plan was 75.2% funded. The actuarial accrued liability for benefits was \$39.2 billion, and the actuarial value of assets was \$29.4 billion, resulting in an unfunded actuarial accrued liability (UAAL) of \$9.7 billion. The covered payroll (annual payroll of active employees covered by the Plan) was \$5.9 billion, and the ratio of the UAAL to the covered payroll was 166.4%.

The schedule of funding progress, presented as RSI following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of Plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits.

For 2010, the ARC and the percentage contributed were \$866,822 and 31.4 % respectively. For calendar years 2009 and 2008, the ARC was \$643,861 and \$584,248, respectively. The percentage contributed for the same periods were 39.1% and 39.9%.

#### (c) Actuarial Methods and Assumptions

In the December 31, 2010 actuarial valuation, a variation of the entry-age actuarial cost method was used. The significant difference between the method used for SERS and the typical entry-age actuarial cost method is that the normal cost is based on the benefits and contributions for

new employees rather than for all current employees from their date of entry. The SERS variation should produce approximately the same results as the typical method over the long run. The actuarial assumptions included (a) 8.0% investment rate of return for 2010 and 2009 (b) projected salary increases ranging from 4.3% to 11.05% with an average increase of 6.2%, and (c) a 2.75% rate of inflation. The assumptions did not include a cost-of-living adjustment. The remaining amortization period at December 31, 2010, was 29 - 30 years, closed.

For purposes of determining the ARC, a 30-year equivalent amortization period was used for both December 31, 2010 and 2009.

The unprecedented loss of 2008 will have a significant impact on the actuarial value of assets over the next two years. The funding ratio could decrease substantially; however due to the actuarial five-year smoothing of investment returns, the full impact of 2008's negative investment return will not be felt until the fiscal year beginning July 1, 2012.

#### (11) Reclassification

Certain amounts in the 2009 financial statements have been reclassified to be in conformity with the presentation of these amounts in the 2010 financial statements.

#### (12) Subsequent Events

The System evaluated subsequent events through May 10, 2011 the date the financial statements were available to be issued. Events or transactions occurring after December 31, 2010, but prior to May 10, 2011 that provided additional evidence about conditions that existed at December 31, 2010, have been recognized in the financial statements for the year ended December 31, 2010. Events or transactions that provided evidence about conditions that did not exist at December 31, 2010, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended December 31, 2010.

These notes are an integral part of the accompanying financial statements.

Schedule 1 Schedule of Funding Progress (Dollar Amounts in Millions)

Actuarial Valuation Year Ended December 31	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Covered Payroll	UAAL as a Percentage of Covered Payroll
2010	\$29,444	\$39,180	\$9,736	75.2%	\$5,852	166.4%
2009	30,205	35,797	5,592	84.4	5,936	94.2
2008	30,636	34,437	3,801	89.0	5,660	67.2
2007	30,840	31,754	914	97.1	5,529	16.5
2006	28,149	30,365	2,216	92.7	5,662	39.1
2005	26,794	28,852	2,058	92.9	5,138	40.1

Schedule 2 Schedule of Employer Contributions (Dollar Amounts in Thousands)

Year Ended December 31	Annual Required Contributions	Percentage Contributed
2010	\$866,822	31.4%
2009	643,861	39.1
2008	584,248	39.9
2007	617,253	39.3
2006	548,745	35.6
2005	319,190	46.1

GASB 25 establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability (UAAL). The scheduled payments since July 1, 2005 have been below the minimum amount required to meet the GASB minimum. This is a result of financing changes implemented by Act 2003-40 in

December 2003. The increase in the ARC from 2008 to 2009 was influenced by the \$0.8 billon increase in average UAAL. In 2010, the average UAAL was \$4.7 billion as a result of the "Fresh Start" from Act 120. The 30-year amortization of this substantially higher UAAL resulted in the larger increase in the ARC from 2009 to 2010.

# **Schedule of Administrative Expenses**

(Dollar Amounts in Thousands) December 31, 2010

Personnel services:		
Salaries	\$10,899	
Benefits	4,096	
Temporary personnel wages, overtime, and outservice training	59	
Total personnel services		\$15,054
Professional services:		
Consultant fees	3,901	
Treasury Department services	895	
Commonwealth services	435	
Consultant contractual services vendor provided	325	
Legal fees	170	
Consultant services EDP	97	
Total professional services		5,823
Rentals:		
Real estate rent	1,436	
Other equipment rental	125	
Total rentals		1,561
Communication:		
Postage	372	
Telephone	302	
Printing and advertising	227	
Total communication		901
Other expenses:		
Maintenance	701	
Subscriptions and memberships	359	
EDP Software	335	
EDP and office equipment	199	
Supplies	132	
Travel and conferences	71	
Total other expenses		1,797
Total Administrative Expenses		\$25,136

# Summary of Investment Expenses and Consulting Fees (Dollar Amounts in Thousands) December 31, 2010

# **Investment Expenses**

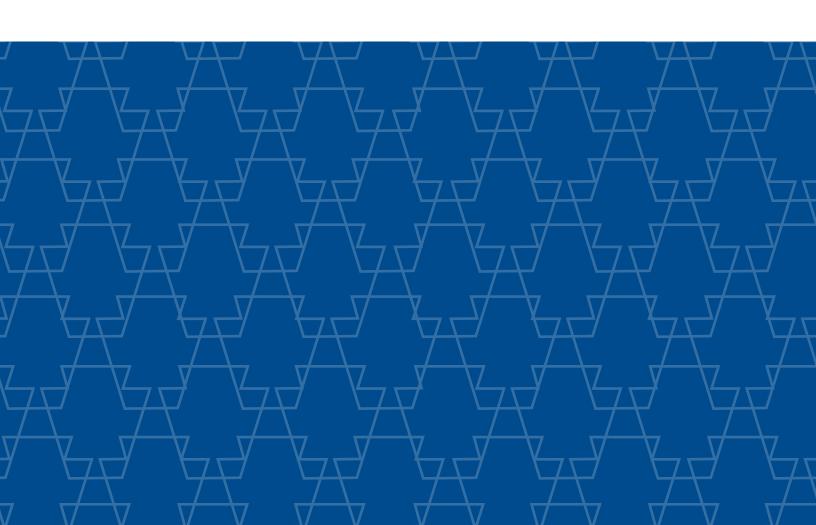
	Expenses		
Investment manager expenses:			
Alternative Investments	\$116,391		
Absolute Return	37,175		
Real Estate	28,069		
Stock	22,633		
Fixed Income	15,100		
Inflation Protection	7,827		
Total investment manager expenses	227,195		
Investment related expenses:			
Alternative Investments	5,995		
Real Estate	2,429		
Custodial	201		
Other	6		
Total investment related expenses	8,631		
Total Investment Expenses	\$235,826		

# **Consulting Fees**

Firm	Service Type	Fees
Cambridge Associates	Alternative Investments	\$2,400
Rocaton Investment Advisors	General Investment	533
The Hay Group	Actuary	511
The Townsend Group	Real Estate	250
Institutional Shareholder Services	Proxy Services	103
Other	Miscellaneous	104
<b>Total Consulting Fees</b>		\$3,901

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# **Investment Section**







Commonwealth of Pennsylvania

## State Employees' Retirement System

30 North Third Street, Suite 150 Harrisburg, Pennsylvania 17101-1716 Telephone: 717-787-9657 www.sers.state.pa.us



Anthony S. Clark, CFA Chief Investment Officer

May 27, 2011

#### Dear Members:

The following pages provide details on the structure, strategy, and performance of the SERS investment program (Fund). The data contained in the Investment Section was compiled by the SERS investment office, financial reporting and auditing staff; SERS' consultants, Rocaton Investment Advisors, Cambridge Associates and the Townsend Group; and SERS' custodian, BNY Mellon. Performance is reported net of fees and calculated using the Modified Dietz day–weighted return methodology.

The Fund is managed in accordance with the investment policy and objectives established by the Board, operating as fiduciaries in the sole interest of the Fund. The primary investment objective of the Fund is to assure the adequate accumulation of reserves at the least cost to the citizens of the Commonwealth, while preserving the principal of the Fund against erosion due to inflation. The Board seeks to meet these objectives within acceptable risk parameters through broad diversification of investments by type, industry, investment manager style, and geographic location. Investment diversification is the primary approach used to achieve return objectives with minimal acceptable risk.

The SERS Investment Office, in conjunction with the Fund's consultants, performs an annual review of the Fund, recommending modifications to asset allocation. The results of this annual review and its recommendations are presented to the Board for comment and approval. Asset allocation decisions are among the most important decisions the Board makes in striving to achieve the Fund's investment objectives. The Fund's structure is highly complex and broadly diversified. The investment program contains 211 investment advisors managing 460 investment portfolios with distinct mandates.

The outcome of the 2010 investment program review was adoption of a strategic redirection of the Fund to better satisfy increasing liability demands of a maturing pension plan by right-sizing liquidity and reducing the return volatility of the Fund. The primary strategic change is to reduce allocations in illiquid asset classes/ strategies such as Private Equity, Venture Capital, and Absolute Return Strategies, and increase exposure in more liquid market segments that include Public Equity and Fixed Income, while realizing a total return that equals or exceeds the present actuarial return assumption of 8%. The Board approved the **2011 Annual Strategic Investment Plan** to implement the new Fund strategy.

Capital markets continued to rebound in 2010 from the market collapse in 2008, although the recovery was not as strong as in 2009. All major asset classes/strategies and every equity market sector had positive performance. Commodities, Public Equity, and Private Equity posted the strongest returns. Real Estate had the weakest, but still positive, performance due to persistent challenging conditions in that market. Prospectively, indicators for favorable investment returns include continued strong corporate earnings growth, improving liquidity in capital markets and the banking system, recovery in consumer spending, and declining unemployment. Investor confidence, however, is threatened by monetary policy, sovereign debt issues, commodity inflation, and geopolitical unrest. Notwithstanding these concerns, the financial deleveraging trend worldwide remains in place and bodes well for investment returns.

2010 CAFR Report on Investment Activity - pg 2

The Fund recorded a gain of 11.9% for 2010, exceeding the Fund's 8% actuarial return assumption and earning \$3.1 billion. The Fund had employer and employee contributions of \$622 million. These increases were offset by benefit and expense payments of \$2.5 billion, resulting in a \$1.2 billion increase in assets. Although SERS' ten-year performance of 4.8% trailed the Fund's long-term 8% actuarial return assumption, it is important to note that SERS' long-term 20-, 25- and 30-year returns have surpassed this benchmark at 9.1%, 9.3% and 10.1%, respectively.

As mentioned last year, SERS instituted an aggressive cash management program. One of the objectives of this initiative was to ensure that cash flows matched SERS' benefit obligations for 2010 and 2011 in the wake of liquidity challenges in 2008. The Fund achieved this objective in 2010, and is well on its way to meeting the liquidity goal for 2011.

The Fund is uniquely positioned at this time. The over-weight exposures in Private Equity and Absolute Return strategies resulting from the severe 2008 worldwide market correction represent the highest performing, and lowest risk strategies, respectively, in the portfolio. As a result, with the markets recovering, the Fund is currently well-positioned to benefit from positive returns at modest levels of risk, while also offering some downside protection due to the broad diversification inherent in the portfolio.

SERS continues to invest in the Commonwealth of Pennsylvania, providing funding for investments that have a positive impact on the economy of the State. In aggregate, \$1.3 billion or 5.3% of the Fund is invested in Pennsylvania. Investments include public equities, fixed income, real estate, venture capital, and private equity. SERS invested with 32 investment managers domiciled in Pennsylvania and provided capital to 364 publicly-traded corporations with operations and employees in the Commonwealth.

SERS' Investment Office vigilantly monitors economic conditions and market events, working to position the Fund to achieve its performance objectives under a wide variety of economic scenarios. Under the supervision and guidance of the Board, be assured that SERS is making every effort to ensure that members receive the financial security they have earned and deserve.

Sincerely,

Anthony S. Clark, CFA Chief Investment Officer The Board originally adopted a formal *Statement* of *Investment Policy* in 1979. It has been revised periodically, to reflect and incorporate legislative changes governing investments and amendments to policies and procedures guiding the investment of the defined benefit portfolio. The latest *Statement of Investment Policy* was adopted in 2009. The purpose of the statement is to formalize the Board's investment objectives, policies, and procedures, to establish guidelines for the investment of Fund assets, and to define the duties and responsibilities of the various entities involved in the investment process. The major elements of the statement are:

- As fiduciaries, the Board will exercise that degree of judgment, skill and care under the circumstances then prevailing which investors of prudence, discretion and intelligence, who are familiar with such matters, exercise in the management of their own affairs in investment matters;
- The Fund's overall investment objective is to provide a total rate of return, over full economic cycles, which exceeds the return of a fully diversified market portfolio within each asset class. The Board seeks to meet

- this objective within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, quality and geographic location;
- The Board employs an investment staff and also contracts with investment advisors and consultants to provide expert, professional judgment in all investment decisions;
- An annual strategic investment plan is prepared to establish the allocation of funds among investment advisors and categories of assets during the year;
- Objectives are established for each category of assets used by the Fund's investment advisors to provide a framework for monitoring quality, diversification and liquidity;
- SERS is committed to promoting and improving good corporate governance practices of companies within the portfolio; and
- Where investment characteristics, including yield, risk and liquidity are equivalent, the Board's policy favors investments which have a positive impact on the economy of Pennsylvania.

# Investment Section Investment Objectives

To assure an adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth and to provide some protection against the erosion of principal by inflation, the long-term investment objectives for the Fund, are:

- Achieve a net total return equivalent to the actuarial return assumption, or preferably in excess of this rate over market cycles in order to improve the funded ratio of the System through investment earnings;
- Achieve in Global Stock a total return that exceeds the total return of the MSCI World Net Dividends Index:
- Achieve in U.S. Stock a total return that exceeds the total return of the Russell 3000 Index;
- Achieve in Non-U.S. Stock a total return that exceeds the total return of the SERS Custom International Stock Benchmark;
- Achieve in the stand alone Absolute Return Strategy a total return that exceeds the 90 Day LIBOR + 300 bps;
- Achieve in the Fixed Income asset class a total return that exceeds the total return of the SERS Custom Fixed Income Benchmark;

- Achieve in the Real Estate asset class a total return that exceeds the total return of the Townsend Stylized Benchmark;
- Achieve in the Private Equity asset class a total return that exceeds the Cambridge Private Equity Benchmark;
- Achieve in the Venture Capital asset class a total return that exceeds the Cambridge Venture Capital Benchmark;
- Achieve in Inflation Protection a total return that exceeds the total return of the SERS Custom Inflation Protection Benchmark;
- Achieve in the Cash asset class a total return that exceeds the total return on 3 Month T-bills;

Total return includes income, both realized and unrealized gains and losses, and is computed on market value. The Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location.

## **Schedule of Portfolio Returns\* After Fees**

For the period ending December 31, 2010

Asset Class/Strategy	1 Year Total Return	3 Year Total Return	5 Year Total Return	10 Year Total Return
Global Stock 1/	18.2%	0.8%	N/A	N/A
MSCI World Net Dividends Index	11.8	-4.9	N/A	N/A
U.S. Stock	18.0	-7.8	0.5%	2.1%
Russell 3000 Index	16.9	-2.0	2.7	2.2
Non-U.S. Stock	13.5	-8.7	2.4	5.0
SERS Custom International Stock Benchmark <sup>2/</sup>	12.5	-4.6	5.1	6.5
Fixed Income	11.7	6.7	6.8	7.1
SERS Custom Fixed Income Benchmark	9.1	7.6	7.1	6.9
Absolute Return Strategy 3/	6.3	-0.6	N/A	N/A
90 Day LIBOR + 300 bps	3.3	3.4	N/A	N/A
Cash	0.3	1.4	2.8	2.6
3 Month T-Bills	0.1	0.8	2.4	2.4
Real Estate 4/	2.3	-13.6	-1.5	5.6
Townsend Stylized Benchmark <sup>5/</sup>	6.4	-12.0	-0.8	5.0
Private Equity 4/	18.3	1.3	12.3	10.4
Cambridge Private Equity Benchmark	18.0	0.9	10.4	8.6
Venture Capital 4/	8.3	-2.7	3.3	-6.8
Cambridge Venture Capital Benchmark	6.0	-3.0	3.7	-7.9
Inflation Protection 6/	19.9	0.9	4.8	N/A
SERS Custom Inflation Protection Benchmark	13.8	-3.9	0.7	N/A
Total Fund	11.9%	-4.5%	3.5%	4.8%
Total Fund Benchmark	11.3%	-0.5%	5.5%	<b>5.4</b> %

<sup>\*</sup>Returns for periods greater than one year are annualized.

<sup>&</sup>lt;sup>1</sup> Global Stock was initially funded in November 2006.

<sup>&</sup>lt;sup>2</sup> The Non-U.S. Stock asset class and SERS Custom International Stock Benchmark were hedged between May 1, 1996 ending January 31, 2007.

<sup>&</sup>lt;sup>3/</sup> Absolute Return Strategy was initially funded in August 2007.

<sup>&</sup>lt;sup>4</sup>/Results for the Real Estate, Private Equity, Venture Capital and benchmarks are lagged one quarter.

<sup>&</sup>lt;sup>5</sup>/The private real estate component of the Townsend Stylized Benchmark is reported net of fees. The public real estate and timber components are reported before fees.

<sup>&</sup>lt;sup>6</sup> Inflation Protection was initially funded in November 2001.

## U.S. Stock

## Non-U.S. Stock

Holding	Fair Value	Holding	Fair Value
Wesco International Inc	\$15,685,877	Nestle SA	\$40,016,781
Precision Castparts Corp	15,673,097	Novartis AG	27,338,583
Crown Holdings Inc	15,310,905	DBS Holdings	23,814,404
Ansys Inc	15,084,471	Mitsubishi Estate Co	19,075,443
Simon PPTY Group Inc	14,207,769	Cheung Kong Ltd	18,485,960
Vishay Intertechnology Inc	13,258,682	Imperial Tobacco Group	17,855,118
II-VI Inc	12,573,296	Reckitt Benckiser Group PLC	17,654,296
Interdigital Inc	11,944,809	Cnooc Ltd	17,476,624
Equity Residential	11,385,362	Sun Hung Kai Properties Ltd	17,374,646
Ametek Inc	11,200,262	Keyence Corp	16,828,378

#### Non-U.S. Fixed Income

Holding	Fair Value
Russian Federation Bond, Variable Rate March 31, 2030	\$34,882,688
Brazilian National Treasury Note, 10.000% January 1, 2017	12,830,675
Standard Bank South Africa Ltd, 7.500% January 15, 2014	10,947,605
Federative Republic of Brazil, 8.750% February 4, 2025	8,602,192
United Mexican States, 7.750% December 14, 2017	8,579,452
Republic of Philippines, 7.500% September 26, 2024	8,304,863
Republic of Iraq, 5.800% January 15, 2028	8,207,290
Republic of Brazil, 6.000% January 17, 2017	7,804,869
United Mexican States, 5.625% January 15, 2017	7,507,528
Government of Poland, 5.250% April 25, 2013	7,456,229

## **U.S. Government and Government Related**

Holding Holding	Fair Value
U.S. Treasury Inflation Index Note, 1.250% April 15, 2014	\$137,302,257
U.S. Treasury Inflation Index Note, 0.500% April 15, 2015	135,801,879
U.S. Treasury Inflation Index Note, 2.500% July 15, 2016	134,760,969
U.S. Treasury Inflation Index Note, 2.375% January 15, 2017	134,354,497
U.S. Treasury Inflation Index Note, 2.000% January 15, 2016	133,956,588
U.S. Treasury Inflation Index Note, 1.875% July 15, 2015	133,634,571
U.S. Treasury Inflation Index Note, 2.000% July 15, 2014	115,187,348
U.S. Treasury Inflation Index Note, 1.625% January 15, 2015	98,623,449
U.S. Treasury Inflation Index Note, 1.875% July 15, 2013	97,305,340
U.S. Treasury Inflation Index Note, 2.000% January 15, 2014	76,207,470

# **U.S. Corporate Fixed Income**

Holding	Fair Value
AES Corp Senior Note, 8.000% October 15, 2017	\$7,772,625
Credit-Suisse First Boston, 6.000% May 17, 2040	7,540,923
Xerox Capital Trust I, 8.000% February 1, 2027	6,715,500
Toll Brothers Finance Corp, 6.875% November 15, 2012	6,484,545
Dish DBS Corp, 6.375% October 1, 2011	6,118,200
AIG SunAmerica Global Note, 6.300% May 10, 2011	6,090,000
Sprint Capital Corp, 7.625% January 30, 2011	6,015,000
CPS Auto Trust 2010, 11.000% July 17, 2017	5,965,757
Vanguard Health, 8.000% February 1, 2018	5,842,500
HCA Inc, 9.250% November 15, 2016	5,521,104

Note: A detailed list of SERS' investment holdings at December 31, 2010, may be viewed at www.sers.state.pa.us

# Schedule of Trading Broker Commissions Year Ended December 31, 2010

Broker fees on equity investment transactions for the year ended December 31, 2010 were \$4.5 million. Below is a list of the brokers receiving fees in excess of \$20,000 during the year.

Broker	Commissions	Broker	Commissions
Merril Lynch	\$296,825	HSBC Securities	\$36,335
Credit Suisse	289,869	SG Securities	33,234
JP Morgan Chase	266,687	Janney Montgomery Scott	32,701
Morgan Stanley	243,404	Caylon Securities	32,038
Citigroup Global Markets	243,399	Baypint Trading	32,026
Goldman Sachs	204,913	Oddo Securities	31,449
UBS Securities	195,293	Deutsche Securities	31,150
Deutsche Bank	146,406	Sanford C Bernstein & Company	30,481
Macquarie Bank	127,977	Keefe Bruyette & Woods	29,716
Liquidnet	125,402	Euromobilare	29,476
Nomura Bank International	121,023	Banco Itau	29,033
Banc One Capital Markets	109,262	Chase Manhattan Bank	28,515
Credit Lyonnais	108,415	Guggenheim Capital Market	27,020
Barclays	87,530	CL King & Associates	26,550
Raymond James & Associates	67,444	Exane	26,300
Bloomberg Tradebook	53,692	Boenning & Scattergood	26,292
BNP Capital Markets	51,251	McDonald & Company Securities	25,429
Stifel Nicolaus	50,508	ABN AMRO	24,877
Jefferies & Company	50,428	Mizuho Securities	24,408
Daiwa Bank	43,903	Union Bank of Switzerland	22,230
Investment Technology Group	43,702	<b>RBC</b> Dominion Securities	21,591
Pershing	40,137	William Blair & Company	21,521
Credit Agricole	39,818	Citation Group	21,496

The Board adopted an investment policy (Policy) that incorporates the provisions of the Retirement Code which govern the investment of SERS' assets. The Policy provides investment objectives and guidelines. SERS' investment plan is reviewed and updated annually

for strategic asset allocation purposes, as well as for diversification needs within each asset class.

Market Exposure as of December 31, 2010: SERS' assets had an unaudited market exposure of approximately \$25.9 billion.

#### **SERS Asset Allocation**

	Market Exposure* (Unaudited)		2010 Target
Asset Class/Strategy	(\$ millions)	(\$ millions) %	
Global Stock	\$983.0	3.8%	5.0%
U.S. Stock	2,845.2	11.0	11.5
Non-U.S. Stock	3,308.8	12.8	19.0
Alternative Investments	6,732.2	26.0	12.0
Real Estate	2,367.9	9.1	7.0
Fixed Income	3,852.5	14.9	32.5
Inflation Protection	1,096.2	4.2	4.0
Absolute Return	3,942.2	15.2	9.0
Cash	785.5	3.0	0.0
Total Fund	\$25,913.5	100.0%	100.0%

<sup>\*</sup>Numbers may not add due to rounding.

**Number of Investment Advisors**: SERS had 211 investment advisors managing multiple portfolios across asset classes.

- 2 Global Stock advisors
- 6 U.S. Stock advisors
- 7 Non-U.S. Stock advisors
- 6 Absolute Return advisors
- 15 Fixed Income advisors
- 1 Cash advisor
- 2 Inflation Protection advisors
- 26 Real Estate advisors
- 56 Venture Capital general partners managing limited partnerships
- 90 Private Equity general partners managing limited partnerships

**Number of Investment Portfolios**: SERS had 460 investment portfolios.

- 2 Global Stock portfolios
- 8 U.S. Stock portfolios
- 11 Non-U.S. Stock portfolios
- 6 Absolute Return portfolios
- 18 Fixed Income portfolios
- 1 Cash portfolio
- 2 Inflation Protection portfolios
- 61 Real Estate portfolios
- 120 Venture Capital limited partnership interests
- 231 Private Equity limited partnership interests

Global Stock is a component of the stock asset class, one of six major asset classes which SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage the portfolios.

**Investment Objective**: Stock investments are employed by the Fund primarily because their expected return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Global Stock accounts are managed on a total return basis.

SERS' long-term investment objective for the Global Stock component of the stock asset class is to achieve a total return, net of fees, that exceeds the total return of the MSCI World Net Dividends Index.

SERS' **2010** *Annual Strategic Investment Plan* targets an allocation of 5.0% of Fund assets to global stocks.

Market Exposure as of December 31, 2010: Global Stock had a \$983.0 million market exposure, 3.8% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with two external investment advisors.

Type of Investment Portfolios: As of December 31, 2010, SERS Global Stock allocation was invested in large/mid-capitalization strategies.

#### **SERS Global Stock Investments**

Global Stock Investment Advisor	Investment Style	Market Exposure as of 12/31/10* (\$ millions)
1. Walter Scott & Partners	Growth	\$463.9
2. Marathon-London Global Fund	Contrarian sector relative value	519.1
<b>Total Global Stock Investments</b>		\$983.0

<sup>\*</sup>Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.

## Investment Section Investment Summary - U.S. Stock Investments as of December 31, 2010

U.S. Stock is a component of the stock asset class, one of six major asset classes which SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage portfolios.

Investment Objective: Stock investments are employed by the Fund primarily because their expected return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The U.S. Stock asset class is managed on a total return basis.

SERS' long-term investment objective in the U.S. Stock asset class is to achieve a total return, net of fees, that exceeds the total return of the Russell 3000 Index.

Stock investments may include, but not be limited to, publicly traded securities which provide SERS with an equity interest, (e.g., common stock, preferred stock, convertible preferred stock, and convertible bonds).

SERS' **2010** Annual Strategic Investment Plan targets a long-term allocation of 11.5% of assets to U.S. Stock: 9.2% of the Fund to large cap and 2.3% of the Fund to mid/small cap, approximating the composition of the Russell 3000 Index.

The large cap U.S. stocks, benchmarked to the S&P 500 Index, uses index funds, a fund of hedge funds, and an enhanced S&P 500 Index strategy. The mid/small cap U.S. stocks, benchmarked to the Russell 2500 Index, uses index funds, and active strategies benchmarked to the Russell Midcap Index, the Russell 2500 Index, and the Russell Microcap Growth Index.

Market Exposure as of December 31, 2010: U.S. Stock had a \$2.8 billion market exposure, 11.0% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with six external investment advisors.

**Type of Investment Portfolios**: As of December 31, 2010, 1.8% of the total Fund was in all cap, 6.6% in large cap U.S. stocks, and 2.6% in mid/small cap U.S. stocks.

# **SERS U.S. Stock Investments**

U.S. Stock Investment Advisor	Investment Style	Market Exposure As of 12/31/10* (\$ millions)
All cap		
1. BlackRock/Russell 3000 Index Non-Lendable Fund	Russell 3000 Index	\$448.1
Large cap		
2. Robeco Sage Capital	Fund-of-Hedge Funds	1.6
BlackRock/Equity Index Non-Lendable Fund-S&P 500	S&P 500 Index	1,539.8
BlackRock/Alpha Tilts Fund-S&P 500	Enhanced S&P 500 Index	157.0
Mid/small cap		
3. Iridian Asset Management	Midcap private business value	203.4
4. Emerald Advisors	Pennsylvania companies	293.5
5. Mellon Capital Management Corporation	Pennsylvania companies	170.2
6. Turner Investment Partners	Quantitative microcap growth	31.6
Total U.S. Stock Investments		\$2,845.2

<sup>\*</sup>Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.

# Investment Section Investment Summary - Non-U.S. Stock Investments as of December 31, 2010

Non-U.S. Stock is a component of the stock asset class, one of six major asset classes that SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage portfolios.

**Investment Objective**: Stock investments are employed by the Fund primarily because their expected return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Non-U.S. stock asset class is managed on a total return basis.

SERS' long-term investment objective for the Non-U.S. Stock component of the stock asset class is to achieve a total return, net of fees, that exceeds the total return of the SERS Custom International Stock Benchmark (65.5% MSCI EAFE IMI / 34.5% MSCI Emerging Markets Index standard).

SERS' **2010** Annual Strategic Investment Plan targets a long-term allocation of 19.0% of assets to non-U.S. stocks: 9.7% of the Fund to large/mid cap stocks in developed markets, 1.8% of the Fund to small cap stocks in developed markets, and 7.5% of the Fund to stocks in emerging markets.

The large/mid cap stocks in non-U.S. developed markets, benchmarked to the MSCI EAFE Index, uses indexed products and active strategies. The small cap stocks in non-U.S. developed markets, benchmarked to the MSCI EAFE Small Cap Index, uses active strategies. The emerging markets stocks allocation is benchmarked to the MSCI Emerging Markets Index and uses an MSCI Emerging Markets Index fund as well as active strategies.

Market Exposure as of December 31, 2010: Non-U.S. Stock had a \$3.3 billion market exposure which was 12.8% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with seven external investment advisors.

**Type of Investment Portfolios**: As of December 31, 2010, 6.6% of the total Fund was allocated to large/mid cap stocks in non-U.S. developed markets; 1.7% to small cap stocks in non-U.S. developed markets; and 4.5% to emerging markets.

# **SERS Non-U.S. Stock Investments**

	Non-U.S. Stock Investment Advisor	Investment Style	Market Exposure as of 12/31/10* (\$ millions)
Lon		mvestment Style	(ф ининона)
	ge/mid cap		
1.	BlackRock/MSCI ACWI ex-U.S. Index Non- Lendable Fund	MSCI ACWI ex-U.S. Index	\$981.2
2.	Artisan Partners	Global ex-U.S. growth	300.8
3.	Templeton Investment Counsel	Global ex-U.S. value	333.7
4.	Morgan Stanley Investment Management	EAFE value	338.9
Sm	all cap		
5.	Pictet Asset Management	Value with growth	164.2
6.	Harris Associates	Intrinsic value	260.3
Em	erging markets		
	BlackRock/Emerging Markets Index Non- Lendable Fund	MSCI Emerging Markets Index	414.1
7.	Rexiter Capital Management	Core	209.2
	Pictet Asset Management	Value	188.8
	Templeton Strategic Emerging Markets Fund II	Private placements with public companies	49.0
	Templeton Strategic Emerging Markets Fund III	Private placements with public companies	68.6
	Total Non-U.S. Stock Investments		\$3,308.8

<sup>\*</sup>Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.

## Investment Section Investment Summary - Absolute Return Strategies as of December 31, 2010

Absolute Return Strategies are used to diversify the investments of the Fund. This mandate is expected to enhance the Fund's overall risk-adjusted profile, thereby increasing the Fund's long-term efficiency, as measured by the Fund's expected return per unit of risk (information ratio). SERS contracts with external fund-of-hedge funds (FOHF) investment advisors to manage these portfolios.

**Investment Objective**: Absolute Return Strategies are intended to produce uncorrelated diversified return streams in the portfolio to help preserve and enhance the real value of the Fund over long periods of time. Absolute Return Strategies are managed on a total return basis.

SERS' long-term investment objective for the Absolute Return Strategies is to achieve a total return, net-of-fees, that exceeds 90 Day LIBOR + 300 bps.

SERS' **2010** Annual Strategic Investment Plan targets a long-term allocation of 9.0% of Fund assets to Absolute Return Strategies.

Market Exposure as of December 31, 2010: Absolute Return Strategies had a \$3.9 billion market exposure, 15.2% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with six external investment advisors.

**Type of Investment Portfolios**: As of December 31, 2010, SERS' Absolute Return Strategies were diversified through many strategies and sub-strategies.

#### **SERS Absolute Return Strategies Investments**

	Absolute Return Strategies Investment Advisor	Investment Style	Market Exposure as of 12/31/10* (\$ millions)
1.	Arden	Absolute Return	\$245.0
2.	Blackstone Alternative Asset Management	Absolute Return	1,229.2
3.	Mesirow	Absolute Return	637.7
4.	Morgan Stanley Alternative Investment Partners	Absolute Return	400.9
5.	Pacific Alternative Asset Management Company	Absolute Return	1,135.4
6.	Rock Creek	Absolute Return	294.0
	Total Absolute Return Strategies		\$3,942.2

<sup>\*</sup>Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.

Fixed Income is one of six major asset classes that SERS uses to diversify the investments of the Fund. The SERS' investment plan diversifies Fixed Income investments and strategies. SERS contracts with external investment advisors to manage portfolios.

**Investment Objective**: The Fixed Income asset class is employed by the Fund because of its ability to generate current income from interest payments, increase the value of the Fund through the reinvestment of those interest payments, serves as a hedge against disinflation and/ or deflation, and to help diversify the overall Fund. The Fixed Income asset class is managed on a total return basis.

In the Fixed Income asset class, SERS' long-term investment objective is to achieve a total return, net of fees, that exceeds the total return of the SERS Custom Fixed Income Benchmark which is comprised of the Barclay's Capital Aggregate Index, the Custom Intermediate TIPS, the Citigroup High Yield Market and JP Morgan Emerging Market Bond indices.

SERS' **2010** Annual Strategic Investment Plan targets a long-term allocation of 32.5% of assets of the total Fund to the Fixed Income asset class. Of this amount, 60.0% is targeted to the core strategies and 40.0% to specialty strategies (high-yield and emerging market debt).

Market Exposure as of December 31, 2010: Fixed Income had a \$3.9 billion market exposure, 14.9% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with 15 external investment advisors.

**Type of Investment Portfolios**: The Fixed Income asset class is divided into core and specialty segments.

Core: Core portfolios invest in relatively liquid, high quality, fixed income securities with intermediate term durations that meet return, disinflation/ deflation, high quality liquidity and diversification needs of the Fund. SERS had five actively managed core bond portfolios; one Custom Intermediate **Duration Treasury Inflation Protected (TIPS)** portfolio, one global core portfolio, and three portfolios indexed to Barclay's Capital Aggregate Index. The five actively managed core portfolios totaled \$1,716.4 million. In addition, SERS had one \$99.4 million passively managed account benchmarked to the Barclay's Capital Aggregate Index, and one portfolio of \$1.2 million in liquidation. The combination of core portfolios represented 47.2% of the asset class.

Specialty: The specialty strategy portfolios (high-yield, emerging market debt, subordinated debt, mezzanine debt, and bank loan structured credit) focus on debt instruments offering higher return premiums and different risk characteristics than core fixed income securities. SERS had four corporate high yield portfolios with a market exposure of \$653.5 million, one high yield commercial mortgage-backed securities portfolio with a market exposure of \$317.2 million, one structured credit portfolio with a market exposure of \$88.3 million, and five emerging market debt portfolios with a market exposure of \$976.5 million. The specialty portfolios represent 52.8% of the asset class.

# **SERS Fixed Income Investments**

OLIKO	Fixed Income Investment Advisor	Investment Style	Market Exposure as of 12/31/10* (\$ millions)
Core		investment Style	(\$ IIIIIIolis)
	Dreyfus (Formerly Standish Mellon)	Domestic - Index	\$99.4
1.	BNY Mellon	Liquidation Account	1.2
2.	Taplin, Canida & Habacht	Active Domestic	156.2
3.	NISA Investment Advisors	Active Intermediate Duration TIPS	1,266.1
4.	Ramius Advisors	Active Domestic	103.3
5.	Waterfall Asset Management	Active Domestic	115.8
6.	Franklin Templeton	Active Global	75.0
Spec	sialty		
7.	Berwind - PA Capital Fund	PA Capital Fund (inactive)	2.4
8.	Pyramis Global Advisors	Commercial Mortgage-backed Securities	317.2
9.	Oaktree Capital Management	Mezzanine Fund (liquidating)	0.7
10.	Stone Harbor	Global High Yield	605.4
	Stone Harbor	Emerging Market Debt	296.2
11.	Ashmore AEMDF	Emerging Market Debt - U.S. dollars	174.1
	Ashmore LCD	Emerging Market Debt - local currency	198.4
12.	W.R. Huff	High Yield (liquidating)	45.0
13.	SEI Structured Credit Fund	High Yield Bank Loans	88.3
14.	Greylock Capital Management	Emerging Market Debt - Absolute Return (liquidating)	30.0
15.	PIMCO	Emerging Market Debt	277.8
	<b>Total Fixed Income Investments</b>		\$3,852.5

<sup>\*</sup>Includes securities and cash that the manager had available for investment. Numbers may not add due to rounding.

Cash is one of six asset classes that SERS uses to diversify the investments of the Fund. Historically, the Cash asset class has been employed by the System to provide for SERS' liquidity needs as well as accumulate funds for future investment.

The asset class emphasizes the use of higher credit quality debt instruments which are liquid and have short maturities and durations, or which have floating rates and have historically been invested in the Treasury's Short–Term Investment Fund (STIF).

**Investment Objective**: On an asset allocation basis, cash has the lowest expected return of all asset classes. Therefore, since SERS is a long-term investor, the objective is to minimize exposure to this asset and maintain a long-term allocation to the Cash asset class of zero.

Cash payments to meet the Fund's benefit payments and other obligations are sourced through employee and employer contributions, limited partnership distributions, and raising cash from public market managers from time to time. Contributions are a predictable source of cash flow, but are inadequate to meet continuing benefit obligations. Distributions from limited partnerships are unpredictable and dependent on market conditions and terms of partnership agreements.

Accordingly, raising cash from public market equity, fixed income, and fund-of-hedge funds managers is required to meet monthly cash flow requirements.

In the Cash asset class, SERS' long-term investment objectives are to achieve a total return, net of fees, that exceeds the total return on 3 Month T-bills.

Market Exposure as of December 31, 2010: The effective cash exposure was \$785.5 million or 3.0% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: The cash strategy uses The Pennsylvania State Treasury Department to manage the uninvested cash in the liquidity accounts.

Type of Investment Portfolios: SERS Cash asset class currently employs a money market short-term investment strategy. The portfolio also contains the uninvested cash balances held by other SERS investment advisors in other asset classes. Cash is invested in high-quality, highly liquid, short-term investments.

In the aggregate, the State Treasury managed approximately \$928.9 million on behalf of SERS and SERS' external investment advisors as of December 31, 2010.

# Investment Section Investment Summary - Real Estate Investments as of December 31, 2010

Real Estate is one of six major asset classes that SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies real estate investments and balances real estate management styles. In accordance with the investment plan, SERS contracts with external investment advisors to manage portfolios.

Investment Objective: Real Estate investments are generally long-term, illiquid investments that, due to their high correlation with inflation, provide an inflation hedge and, due to their low correlation with stocks and bonds, provide diversification within the total portfolio. It is expected that the long-term total return (income and appreciation) for real estate will fall between that of stocks and bonds. The Real Estate asset class is managed on a total return basis.

In the Real Estate asset class, SERS' long-term investment objective is to achieve a total net return that exceeds the total return of the Townsend Stylized Benchmark for rolling five year periods. SERS' **2010** *Annual Strategic Investment Plan* targets a long-term allocation of 7.0% of assets to the Real Estate asset class.

Investments are made through commingled fund investments, limited partnerships, REITs and separate account portfolios where SERS contracts with external investment advisors to own properties directly or with other co-investors. SERS' Real Estate portfolio provides for diversification by:

- Transaction structure
- Property type
- · Geographic location
- · Development phase

**Fair Value as of December 31, 2010**: Real Estate had \$2.4 billion fair value, 9.1% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with 26 external investment advisors to manage Real Estate portfolios as of December 31, 2010.

**Type of Investment Portfolios**: The most recent property diversification data is as follows:

- 36% pooled funds, 64% separate accounts
- 21% office, 3% industrial, 9% retail, 24% multifamily, 14% hotel, 9% timber, 20% other (including senior and student housing, land and various niche property investments)
- 12% Pennsylvania, 31% East excluding PA, 26% West, 13% South, 4% Midwest, 14% International
- 22% of the fair value of the separate accounts was invested in 17 investments located in Pennsylvania

# **SERS Real Estate Investments**

	Real Estate Investment Advisor	Vintage Year	Property Type	Investment Structure	Fair Value as of 12/31/10* (\$ millions)
1.	AG Asia Realty Fund	2007	Diversified	Limited Partnership	\$21.0
2.	Apollo Real Estate Fund III	1998	Diversified	Limited Partnership	7.8
3.	Berwind Investment Partnership V	1999	Diversified	Limited Partnership	9.8
	Berwind Investment Partnership VI	2002	Diversified	Limited Partnership	8.9
	Berwind Investment Partnership VII	2005	Diversified	Limited Partnership	11.6
	Berwind Investment Partnership VIII	2007	Diversified	Limited Partnership	9.6
4.	Blackstone Real Estate Partners III	1999	Diversified	Limited Partnership	0.5
	Blackstone Real Estate Partners IV	2003	Diversified	Limited Partnership	15.6
	Blackstone Real Estate Partners V	2006	Diversified	Limited Partnership	46.3
	Blackstone Real Estate Partners VI	2007	Diversified	Limited Partnership	62.8
5.	Clerestory Small Cap Fund I	2007	Diversified	Limited Partnership	7.5*
6.	Colony Investors VIII	2007	Diversified	Limited Partnership	9.3*
7.	Fidelity Real Estate Opportunistic Income Fund	2007	Debt	Limited Partnership	39.2
8.	Fillmore East Fund	2005	Debt	Limited Partnership	6.2
	Fillmore West Fund	2008	Debt	Limited Partnership	15.4
9.	Forest I.M.A.	1992	Timber	Separate Account	194.3
10.	Goldman Sachs Whitehall V & VI	1994	Diversified	Limited Partnership	0.2
	Goldman Sachs Whitehall VII & VIII	1996	Diversified	Limited Partnership	0.4
11.	Grosvenor I.M.A.	1994	Diversified	Separate Account	297.3
	Grosvenor Residential Investment Partners I	2007	Residential	Limited Partnership	5.7
12.	Hawkeye Scout Fund I	2006	Diversified	Limited Partnership	57.1
13.	Heitman America Real Estate Trust	2007	Diversified	Limited Partnership	95.2
	Heitman I.M.A.	1988	Diversified	Separate Account	60.5
14.	ING Clarion Real Estate Securities	1996	REITs	Separate Account	280.2
15.	LaSalle I.M.A.	1994	Diversified	Separate Account	214.2
16.	Lowe I.M.A.	1994	Diversified	Separate Account	339.8
17.	Lubert Adler Fund II	1998	Diversified	Limited Partnership	0.0
	Lubert Adler Fund III	2000	Diversified	Limited Partnership	1.0*
	Lubert Adler Fund IV	2004	Diversified	Limited Partnership	5.8*
	Lubert Adler Fund V	2006	Diversified	Limited Partnership	13.3*
	Lubert Adler Fund VI	2008	Diversified	Limited Partnership	8.7*
	Lubert Adler Fund VI-A	2010	Diversified	Limited Partnership	0.7*
18.	OCM Real Estate Opp Fund A	1996	Diversified	Limited Partnership	1.3
	OCM Real Estate Opp Fund II	1998	Diversified	Limited Partnership	0.9
	OCM Real Estate Opp Fund III	2003	Diversified	Limited Partnership	15.0
19.	The Oxford Fund	2006	Diversified	Limited Partnership	13.9
20.	Prudential Latin America Residential Fund III	2007	Residential	Limited Partnership	21.0*
	Prudential Latin America Retail Fund I	2006	Retail	Limited Partnership	24.7*
	Prudential Senior Housing Fund II	2001	Senior housing	Limited Partnership	10.5
	Prudential Senior Housing Fund III	2006	Senior housing	Limited Partnership	29.7

# **SERS Real Estate Investments (continued)**

	Real Estate Investment Advisor	Vintage Year	Property Type	Investment Structure	Fair Value as of 12/31/10* (\$ millions)
21.	Rockpoint Finance Fund I	2006	Diversified	Limited Partnership	\$1.8
	Rockpoint Real Estate Fund I	2004	Diversified	Limited Partnership	2.9
	Rockpoint Real Estate Fund II	2005	Diversified	Limited Partnership	8.8
	Rockpoint Real Estate Fund III	2007	Diversified	Limited Partnership	20.7
22.	Sentinel Real Estate Fund	1986	Residential	Open-Ended Fund	49.4
23.	Starwood Fund IV	1997	Diversified	Limited Partnership	0.8
	Starwood Fund V	1999	Diversified	Limited Partnership	1.3
	Starwood Fund VI	2001	Diversified	Limited Partnership	17.9
	Starwood Fund VII	2005	Diversified	Limited Partnership	23.8
	Starwood Fund VIII	2007	Diversified	Limited Partnership	30.3
24.	UBS Multi-Family Trust	1999	Residential	Limited Partnership	0.3
	UBS Trumbull Property Fund	1988	Diversified	Open-Ended Fund	70.0
	UBS Trumbull Property Income Fund	1988	Diversified	Open-Ended Fund	65.6
25.	Urdang Real Estate Securities	2002	REITs	Separate Account	52.4
26.	Westbrook Fund II	1997	Diversified	Limited Partnership	1.1
	Westbrook Fund III	1998	Diversified	Limited Partnership	2.8
	Westbrook Fund IV	2000	Diversified	Limited Partnership	0.2
	Westbrook Fund V	2004	Diversified	Limited Partnership	1.2
	Westbrook Fund VI	2005	Diversified	Limited Partnership	9.9
	Westbrook Fund VII	2006	Diversified	Limited Partnership	36.1
	Westbrook Fund VIII	2009	Diversified	Limited Partnership	7.8
	<b>Total Real Estate Investments</b>				\$2,367.9

<sup>\*</sup>Fair values for these advisors have not been received as of year end. The values are third quarter fair values adjusted by fourth quarter cash flows.

Alternative Investments is comprised of Venture Capital and Private Equity investments, both of which take the form of limited partnerships, and is one of six major asset classes that SERS uses to diversify the investments of the Fund.

#### **Venture Capital and Private Equity Defined**

Venture Capital is the financing of young, rapidly growing companies, typically at three stages of development: (1) seed and early stage, (2) late and later stage, and (3) growth or expansion stage. Seed financing supports companies in their conceptual phase, when a product and market are identified, and a corporation may have been formed. Early stage financing supports companies pursuing a business plan but not yet generating meaningful revenues. For instance, when a product has been developed and may have been shipped to customers for testing, and when management positions have been filled and an operating team is in place. Late and later stage financing supports companies that have proven revenues, and are in the process of rolling out operations and building sales to achieve profitability. Growth or expansion stage financing supports profitable or nearly profitable businesses that, lacking access to significant debt financing, need capital for growth and expansion. Companies at either the later stage, or growth or expansion stage may be nearing a strategic sale to another company or an initial public offering.

Private Equity primarily refers to investments in the equity and subordinated debt of established companies. Private equity approaches undertaken by SERS' limited partnerships include three types: (1) Leveraged buyouts and management buyouts, (2) Distressed debt investing, and (3) Secondary interests in established private

equity funds. Leveraged buyouts and management buyouts involve companies acquired through the use of borrowed funds, or a combination of borrowed funds and contributed equity capital. The acquired company's assets serve as collateral for the borrowed funds, which are repaid from the company's cash flows. Distressed debt investing involves: deleveraging debt-laden but successful companies, by infusing capital to permit debt reduction in exchange for an equity stake in the company; or acquiring the debt of a troubled, sometimes bankrupt company at steep discounts to face value, followed by assistance to return the company to profitability to permit selling of the debt securities at levels above the discounted purchase price. Secondary interests in established private equity funds are purchased from other investors who seek liquidity or desire to realign or rebalance their investment portfolios, often for non-financial reasons. Such partnership interests can be purchased at significant discounts to net asset value and often occur when the acquired partnerships begin to realize profits.

Investment Objective: SERS' long term investment objective for Alternative Investments is to achieve a risk-adjusted total return, net of fees, in excess of the return generated by the Cambridge Private Equity Benchmark and the Cambridge Venture Capital Benchmark for respective holdings. SERS' 2010 Annual Strategic Investment Plan anticipates an Alternative Investment long-term allocation range with a midpoint of 12.0%.

**Fair Value as of December 31, 2010**: Alternative Investments had \$6.7 billion fair value, 26.0% of the total Fund's \$25.9 billion. Sub–asset class fair values and fund percentages were as follows:

#### **SERS Alternative Investments**

	Unfunded		Percent of
	Commitments	Fair Value	Total
	(\$ millions)	(\$ millions)	Fund
Venture Capital	\$535.7	\$1,664.6	6.4%
Private Equity	1,818.7	5,067.6	19.6
<b>Total Alternative Investments</b>	\$2,354.4	\$6,732.2	26.0%

**Number of Limited Partnerships**: As of December 31, 2010, SERS had commitments to 351 active Alternative Investments limited partnerships, 120 to Venture Capital partnerships and 231 to Private Equity partnerships.

Portfolio: SERS' Alternative Investment Program's scope has expanded over the years to include top investment funds nationally and internationally. The Program holds indirect investment interests in over 4,500 companies. The Venture Capital Program includes investments working to commercialize novel solutions to current and future challenges in information technology, communications, and medicine. In addition to direct fund investments, the Venture Capital Program includes investments in several fund-of-funds. A fund-of-funds is a limited partnership that, in turn, invests in other limited partnerships. Five of these fund-of-funds commitments have the strategic goal of enabling SERS to gain indirect exposure to many top-tier venture capital funds that SERS would otherwise have difficulty accessing directly. Another two of these commitments are to funds investing in minority-focused venture capital funds.

The Private Equity Program invests in buyout, distressed, international, and secondary oriented partnerships. Buyout transactions are privately negotiated or result from investment bank sponsored auctions, and are usually completed with present management in place;

hostile acquisitions are generally avoided. Distressed investment managers employ differentiated strategies, i.e., they employ control or non-control approaches, and accordingly, have differing degrees of active influence over the companies in which they invest. European funds are attempting to capitalize on trends favoring the restructuring of large companies, generational succession in businesses established after World War II, cross-border business opportunities within the region since the formation of the European Union and currency harmonization. Asian investments focus on the expanded opportunities in the region created by changing attitudes in many Asian countries regarding foreign investment, favorable demographic trends, globalization opportunities, and economic growth. The Program typically gains initial exposure to emerging markets and other target regions through the use of fund-offunds. The portfolio's exposure to energy markets is also expanding. Additionally, SERS utilizes one manager to oversee stock distributions and another manager for coinvestment opportunities.

Alternative Investment Portfolio Exposure: The Alternative Investment Program is well-diversified by stage of investment, industry focus, and geography. As of September 30, 2010, based on fair value, the Program's exposure was as follows:

By Fund Sub Sector:		Dy Dortfolio Company			
U.S. Private Equity	41.2%	By Portfolio Company Geography:			
U.S. Venture Capital	21.9	U.S. Northeast	13.3%		
Non-U.S. <sup>1/</sup>	18.1	U.S. West Coast	13.1	By Portfolio Company Inc	lustry:
Distressed/Opportunistic	11.5	U.S. Southwest/Rockies	11.2	Consumer/Retail &	21.8%
Pennsylvania Related	5.1	U.S. Southeast	10.1	Services	21.0 /0
Other	2.2	U.S. Midwest	9.2	Healthcare	20.2
		U.S. Mid-Atlantic	8.6	Information Technology	13.1
By Fund Style:				Financial Services	8.6
LBO	42.4%	U.S. Northwest	1.8	Software	8.0
		United Kingdom	6.1	Manufacturing	7.3
Expansion Stage	18.6	Denmark	3.1	Energy	5.9
Early Stage	8.7	Germany	3.0	Media/Communications	5.6
Start-Up	6.9	Canada	2.1	Electronics	2.5
Acquisition/Platform	6.6	Italy	1.8		
Senior Debt LBO	4.5	China	1.7	Other	7.0
Other	12.3	Rest of World	14.9		

<sup>&</sup>lt;sup>1/</sup>Some managers with a domestic investment focus may invest globally. Thus, Non-U.S. exposure measured on a portfolio company basis will be greater.

# **SERS Venture Capital Committed, Drawn and Distributed**

The capital committed column represents total dollars allocated from SERS to each limited partnership. Capital drawn is the portion of SERS' capital commitments drawn by the General Partner to be invested with underlying portfolio companies. The distributions column shows the value of capital and profits returned to SERS.

Active Venture Capital Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
1. ABS Capital Partners VI	Later Stage	3/13/2009	\$40,000,000	\$19,398,203	\$0
2. Adams Capital Management II	Early Stage	10/1/1999	30,000,000	30,000,000	2,600,000
Adams Capital Management III	Early Stage	11/21/2000	30,000,000	30,000,000	4,761,905
3. Advanced Technology Ventures VI	Multi-Stage	3/9/2000	10,000,000	10,000,000	240,896
Advanced Technology Ventures VII	Multi-Stage	7/11/2001	27,000,000	25,784,700	7,183,099
4. Alloy Ventures 2000	Early Stage	5/19/2000	20,000,000	20,000,000	2,674,620
Alloy Ventures 2002	Early Stage	7/22/2002	25,000,000	24,500,000	5,604,706
Alloy Ventures 2005	Seed/Early Stage	8/11/2005	25,000,000	20,750,000	0
Alloy Annex I	Seed/Early Stage	10/31/2003	5,000,000	4,500,000	0
5. Apax Excelsior VI	Later Stage	7/3/2000	35,000,000	34,151,324	43,823,343
P/A Fund I	Later Stage	6/30/1993	30,000,000	30,000,000	66,195,539
P/A Fund III	Later Stage	3/31/1997	100,000,000	100,000,000	161,557,955
6. APEX Investment Fund IV	Early Stage	9/17/1999	25,000,000	25,748,664	2,303,927
APEX Investment Fund V	Early Stage	4/19/2002	20,000,000	20,504,254	4,343,666
7. Artiman Ventures II	Seed/Early Stage	10/27/2006	25,000,000	15,250,000	0
Artiman Ventures III	Seed/Early Stage	8/9/2010	20,000,000	700,000	0
8. Atlas Venture Fund IV	Early Stage	3/31/1999	26,000,000	23,809,496	8,042,039
Atlas Venture Fund V	Early Stage	2/7/2000	37,200,000	37,200,000	15,692,363
Atlas Venture Fund VI	Early Stage	8/1/2001	24,800,000	24,800,000	4,386,035
9. Austin Ventures VIII	Early Stage	7/26/2001	20,932,140	21,100,362	5,988,820
Austin Ventures IX	Early Stage	1/9/2006	15,000,000	10,985,304	881,830
10. Battery Ventures VIII	Diversified	8/13/2007	25,000,000	20,078,333	0
11. Birchmere Ventures III	Early Stage	5/5/2005	10,000,000	8,575,344	2,826,252
12. Care Capital Investments III	Middle/Later Stage	2/8/2006	25,000,000	10,944,770	78,203
13. Charles River Partnership XI	Early Stage	2/15/2001	11,032,259	10,651,996	14,084,889
14. Clearstone Venture Partners III-A	Early/Late Stage	12/22/2004	25,000,000	23,000,000	0
15. Cross Atlantic Technology Fund	Early Stage	2/14/2000	20,000,000	20,149,041	19,244,925
Cross Atlantic Technology Fund II	Early Stage	1/28/2002	32,900,000	32,900,000	18,871,600
Novo Vita	Early Stage	12/26/2000	11,616,498	11,616,498	2,370,430
16. Devon Park Bioventures	Early/Late Stage	12/15/2006	10,842,697	4,873,172	701,849
17. Draper Fisher Jurvetson Fund VI	Early Stage	8/13/1999	8,000,000	8,000,000	3,528,600
Draper Fisher Jurvetson Fund VII	Early Stage	9/22/2000	20,000,000	20,000,000	3,178,088
18. Draper Triangle Ventures	Early Stage	12/20/1999	20,000,000	19,852,039	4,648,414
Draper Triangle Ventures II	Early Stage	10/13/2004	12,000,000	10,034,221	0
19. Fairview Capital I	Fund of Funds	9/30/1994	10,000,000	10,000,000	4,543,128
Fairview Capital II	Fund of Funds	3/31/1998	10,000,000	9,850,000	2,973,017

# **SERS Venture Capital Committed, Drawn and Distributed (continued)**

Active Venture Capital Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
20. Frazier Healthcare III	Early Stage	3/31/1999	\$30,000,000	\$29,925,000	\$10,090,022
Frazier Healthcare IV	Early Stage	9/27/2001	30,000,000	28,905,000	10,792,055
Frazier Healthcare V	Early/Late Stage	5/10/2005	30,000,000	24,780,000	4,595,747
21. Grotech PA III	Later Stage	6/29/1990	3,000,000	3,014,865	2,910,452
Grotech Partners V	Later Stage	9/30/1998	25,000,000	25,000,000	24,521,934
22. Guggenheim Technology Ventures I	Early/Late Stage	11/17/2008	2,000,000	1,160,000	297,134
23. Halpern Denny Fund III	Later Stage	4/26/2000	25,000,000	24,875,000	20,599,764
24. HarbourVest Partners VI	Fund of Funds	5/7/1999	200,000,000	191,586,055	111,458,811
HarbourVest Partners VII	Fund of Funds	3/24/2003	75,000,000	61,875,000	6,125,625
HarbourVest Partners VIII	Fund of Funds	10/5/2006	100,000,000	56,000,000	0
25. Healthcare Ventures III	Early Stage	9/30/1992	15,000,000	15,000,000	30,963,669
Healthcare Ventures V	Early Stage	12/31/1997	25,000,000	25,000,000	52,285,824
Healthcare Ventures VI	Early Stage	6/19/2000	35,000,000	35,000,000	3,462,611
Healthcare Ventures VII	Early Stage	10/29/2002	35,000,000	32,287,500	2,165,418
Healthcare Ventures VIII	Early Stage	8/22/2005	30,000,000	17,475,000	3,520,547
26. Highland Capital Partners VI	Early Stage	10/25/2001	25,000,000	25,000,000	22,043,834
Highland Capital Partners VII	Early Stage	10/13/2006	35,000,000	23,712,500	3,547,906
Highland Consumer Fund I	Diversified	5/4/2007	25,000,000	13,763,199	0
27. IP II	Early Stage	12/17/2001	8,600,000	8,498,074	1,126,082
IP III	Seed/Early Stage	11/19/2004	10,500,000	8,820,000	1,453,417
IP IV	Seed/Early Stage	9/21/2007	14,000,000	5,180,000	0
28. Insight Venture Partners VI	Buyouts	8/21/2007	30,000,000	22,440,000	0
29. InterWest Partners VIII	Early Stage	8/25/2000	25,000,000	25,000,000	7,990,495
InterWest Partners IX	Early Stage	10/19/2005	20,000,000	15,000,000	1,106,563
InterWest Partners X	Early Stage	10/30/2008	30,000,000	6,000,000	0
30. J.H. Whitney III	Later Stage	3/31/1998	20,000,000	20,171,316	50,600,435
J.H. Whitney IV	Later Stage	2/1/2000	20,000,000	17,958,772	6,867,894
31. JMI Equity Fund V	Early/Late Stage	6/7/2005	24,000,000	22,157,205	18,308,789
JMI Equity Fund VI	Early/Late Stage	6/27/2007	40,000,000	28,160,000	0
JMI Equity Fund VII	Growth Equity	*	10,000,000	0	0
32. JP Morgan Venture Capital Investors	Fund of Funds	7/8/1999	100,000,000	104,998,505	38,849,343
JP Morgan Venture Capital Investors II	Fund of Funds	9/8/2000	100,000,000	101,702,362	32,406,820
JP Morgan Venture Capital Investors III	Fund of Funds	6/20/2006	100,000,000	57,620,833	3,650,474
33. Keystone V	Later Stage	3/31/1998	25,000,000	25,000,000	2,082,064
34. Kline Hawkes Pacific	Early Stage	8/30/2000	15,000,000	15,100,498	5,089,301
35. Knightsbridge Venture Capital VI	Fund of Funds	12/7/2004	20,000,000	15,000,000	0
36. Lightspeed Venture Partners VII	Early Stage	2/27/2006	18,000,000	14,407,490	917,875
Lightspeed Venture Partners VIII	Early Stage	6/27/2008	15,000,000	6,000,000	0
37. Meritech Capital Partners II	Later Stage	1/2/2001	26,475,166	24,313,025	18,833,211
Meritech Capital Partners III	Later Stage	4/5/2006	35,000,000	28,175,000	10,694,051
Meritech Capital Partners IV	Later Stage	*	20,000,000	0	0

# **SERS Venture Capital Committed, Drawn and Distributed (continued)**

Active Venture Capital Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
38. Mid-Atlantic Venture Fund III	Early Stage	6/30/1997	\$20,008,308	\$20,000,000	\$5,654,702
Mid-Atlantic Venture Fund IV	Early Stage	5/4/2000	30,000,000	30,000,000	1,835,977
NEPA Venture II	Early Stage	12/31/1992	7,500,000	7,500,000	34,879,769
39. Morgenthaler Partners VII	Early Stage	7/26/2001	35,000,000	35,000,000	11,337,692
Morgenthaler Partners VIII	Diversified	10/3/2005	35,000,000	25,200,000	6,470,397
Morgenthaler Partners IX	Early Stage	11/25/2008	20,000,000	4,000,000	0
40. New Enterprise Associates VI	Early Stage	3/31/1994	25,000,000	25,000,000	198,305,408
New Enterprise Associates VII	Early Stage	12/31/1996	30,000,000	30,000,000	98,996,989
New Enterprise Associates IX	Early Stage	11/15/1999	20,000,000	19,600,000	4,440,531
New Enterprise Associates X	Early/Late Stage	12/11/2000	35,000,000	34,153,000	24,334,629
New Enterprise Associates 11	Early/Late Stage	3/1/2004	25,000,000	23,125,000	12,035,262
New Enterprise Associates 12	Early/Late Stage	6/26/2006	35,000,000	26,254,833	2,405,968
41. NewSpring Growth Capital II	Later Stage	12/5/2006	10,000,000	5,200,000	0
42. Novitas Capital III	Early Stage	4/17/2003	10,000,000	7,925,000	1,388,977
43. Oak Investment Partners XI	Later Stage	7/21/2004	35,000,000	35,000,000	8,514,984
Oak Investment Partners XII	Early/Late Stage	7/10/2006	40,000,000	30,852,065	2,601,448
44. Polaris Venture Partners II	Early Stage	9/30/1998	25,000,000	24,750,000	27,475,884
Polaris Venture Partners III	Early Stage	1/21/2000	50,000,000	49,500,000	19,634,852
Polaris Venture Partners IV	Early Stage	9/30/2002	50,000,000	49,750,000	12,468,949
Polaris Venture Partners V	Diversified	8/8/2006	50,000,000	33,250,000	0
45. Quaker BioVentures	Early Stage	2/20/2003	20,000,000	20,000,000	3,526,430
Quaker BioVentures II	Middle/Later Stage	4/3/2007	25,000,000	11,500,000	392,834
46. Sofinnova Venture Partners VII	Early Stage	1/18/2007	20,000,000	11,400,000	0
47. Sprout VII	Early Stage	3/31/1995	18,000,000	18,000,000	43,829,421
48. Summit IV	Later Stage	9/30/1995	25,000,000	24,250,000	182,806,450
Summit V	Later Stage	3/31/1998	37,500,000	36,187,500	48,685,566
Summit Accelerator Fund	Early Stage	11/15/1999	8,000,000	7,609,500	9,783,578
Summit Partners Venture Capital Fund II	Diversified	9/22/2006	15,000,000	9,975,000	3,296,031
49. T.Rowe Price Stock Distribution Account	Stock Distribution Account	1/3/2005	0	317,753,361	301,551,429
50. TA/Advent VIII	Later Stage	6/30/1997	30,000,000	29,400,000	66,756,735
51. Three Arch Capital	Early Stage	12/20/2000	20,000,000	19,500,000	3,348,457
Three Arch Partners IV	Early/Late Stage	6/4/2004	20,000,000	15,800,000	1,941,653
52. TL Ventures III	Early Stage	3/31/1997	15,000,000	15,062,614	20,677,658
TL Ventures IV	Early Stage	5/13/1999	35,000,000	35,000,000	25,582,809
TL Ventures V	Early Stage	10/18/2000	40,000,000	36,848,219	10,242,983
53. US Venture Partners VII	Early Stage	2/18/2000	13,750,000	13,750,000	3,590,871
US Venture Partners VIII	Early Stage	6/1/2001	26,250,000	25,830,000	8,437,980
54. Weathergage Venture Capital	Fund of Funds	6/26/2007	25,000,000	10,250,000	86,963
Weathergage Venture Capital II	Fund of Funds	6/29/2010	25,000,000	750,000	0

# **SERS Venture Capital Committed, Drawn and Distributed (continued)**

	Active Venture Capital Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
55.	Weston Presidio III	Later Stage	12/31/1998	\$35,000,000	\$31,989,586	\$23,236,172
	Weston Presidio IV	Later Stage	6/21/2000	35,000,000	34,451,015	17,571,914
	Weston Presidio V	Later Stage	12/8/2005	50,000,000	34,600,000	6,310,764
56.	Worldview Technology Partners IV	Early Stage	1/31/2001	18,130,023	16,951,175	3,484,303
	<b>Total Active Venture Capital</b>			\$3,458,037,091	\$3,248,687,788	\$2,180,611,724

<sup>\*</sup>Not Funded as of 9/30/10

Commitments as of 12/31/10 Cash flows as of 9/30/10

# **Inactive Venture Capital Funds**

	Capital		
	Committed	Capital Drawn	Distributions
Total Inactive Venture Capital	\$264,700,000	\$253,789,337	\$499,539,048

# **SERS Private Equity Committed, Drawn and Distributed**

The capital committed column represents total dollars allocated from SERS to each limited partnership. Capital drawn is the portion of SERS' capital commitments drawn by the General Partner to be invested with underlying portfolio companies. The distributions column shows the value of capital and profits returned to SERS.

	Active Private Equity Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
1.	Abingworth Bioventures IV	Multi-Stage	9/1/2003	\$20,000,000	\$17,780,000	\$4,563,416
	Abingworth Bioventures V	Multi-Stage	1/23/2007	33,775,000	15,891,384	541
2.	ABRY Partners IV	Buyouts	3/30/2001	35,000,000	24,920,403	26,049,025
	ABRY Partners V	Buyouts	7/29/2005	45,000,000	40,082,061	54,382,238
	ABRY Partners VI	Mid Market Buyouts	3/26/2008	50,000,000	37,502,866	754
	ABRY Advanced Securities Fund	Senior Debt	8/1/2008	25,000,000	16,190,640	744,768
	ABRY Broadcast Partners III	Buyouts	2/7/1997	25,000,000	22,592,561	22,188,623
	ABRY Mezzanine Partners	Mezzanine	3/15/2002	30,000,000	26,540,537	34,130,863
	ABRY Senior Equity II	Private Equity	7/27/2006	30,000,000	26,922,865	6,423,972
3.	ABS Capital Partners III	Buyouts	3/26/1999	35,000,000	29,428,915	18,465,307
	ABS Capital Partners IV	Buyouts	10/13/2000	35,000,000	30,984,280	57,368,092
	ABS Capital Partners V	Buyouts	11/14/2005	20,000,000	19,627,560	2,009,511
4.	Accel Europe	Early Stage	7/2/2001	15,000,000	11,350,000	0
5.	Advent International GPE VI-A	Mid Market Buyouts	7/7/2008	35,000,000	12,162,500	700,000
	Advent Latin American Private Equity Fund IV	Buyouts	8/2/2007	30,000,000	22,050,000	3,300,000
	Advent Latin American Private Equity Fund V	Buyouts	5/17/2010	15,000,000	375,000	0
6.	AG Capital Recovery Partners II	Distressed Debt	10/1/2001	17,600,000	17,695,470	27,086,586
	AG Capital Recovery Partners IV	Distressed Debt	2/4/2003	50,000,000	35,415,216	54,685,621
	AG Capital Recovery Partners V	Distressed Debt	4/17/2006	20,000,000	20,000,000	8,520,000
7.	Alpha Private Equity Fund 4	Mid Market Buyouts	5/15/2002	26,580,000	35,605,050	72,301,496
	Alpha Private Equity Fund 5	Mid Market Buyouts	4/1/2006	67,660,800	61,007,207	7,067,686
8.	APAX Europe IV	Buyouts	3/31/1999	35,000,000	29,909,800	37,636,346
	APAX Europe V	Buyouts	4/27/2001	70,000,000	70,385,477	130,812,281
	APAX Europe VI	Buyouts	5/19/2005	76,349,190	68,631,580	51,579,928
	APAX Europe VII	Buyouts	6/27/2007	132,900,000	86,525,450	0
	APAX UK Ventures VI	Middle/Later Stage	12/31/1997	6,918,899	6,933,887	13,109,711
9.	Apollo Investment Fund IV	Buyouts	9/30/1998	75,000,000	74,838,620	106,485,077
	Apollo Investment Fund V	Buyouts	8/23/2001	50,000,000	46,528,159	101,572,361
	Apollo Investment Fund VI	Buyouts	7/19/2006	40,000,000	35,076,832	2,261,112
10.	Asia Alternatives Capital Partners	Fund of Funds	6/26/2007	50,000,000	17,411,702	1,375,640
	Asia Alternatives Capital Partners II	Fund of Funds	3/7/2008	50,000,000	4,502,723	698,913
	Asia Alternatives Korea Buyout Investors (Hahn & Co)	Buyouts	*	7,000,000	0	0
11.	Asia Pacific Growth Fund III	Global Situations	9/28/1999	15,000,000	15,367,113	9,056,122
12.	Audax Private Equity Fund	Mid Market Buyouts	5/25/2000	35,000,000	36,839,098	51,124,151
	Audax Private Equity Fund II	Mid Market Buyouts	6/17/2005	25,000,000	25,517,169	9,040,715
	Audax Private Equity Fund III	Mid Market Buyouts	11/7/2007	37,000,000	25,853,830	1,621,483

# **SERS Private Equity Committed, Drawn and Distributed (continued)**

Active Private Equity Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
13. Avenue Special Situations Fund IV	Distressed Debt	3/27/2006	\$50,000,000	\$50,000,000	\$26,608,711
Avenue Special Situations Fund V	Distressed Debt	6/4/2007	70,000,000	70,004,050	1,984,960
Avenue Special Situations Fund VI	Distressed Debt	*	20,000,000	0	0
Avenue Asia Special Situations Fund IV	Distressed Debt	6/30/2006	50,000,000	32,415,221	2,031,772
Avenue Europe Special Situations Fund	Distressed Debt	7/30/2008	34,750,000	32,835,142	96,125
14. AXA Secondary Fund III	Secondaries	11/19/2004	26,000,000	20,875,729	27,240,142
AXA Secondary Fund III-2	Secondaries	11/24/2004	14,000,000	11,164,568	13,985,929
AXA Secondary Fund IV	Secondaries	2/26/2007	80,000,000	45,790,533	2,469,042
15. B III Capital Partners	Distressed Debt	9/30/1997	35,000,000	34,503,390	50,362,865
16. Bain Capital Fund VII	Buyouts	7/6/2000	25,000,000	25,000,000	40,556,249
Bain Capital Fund VIII-E	Buyouts	12/15/2004	13,405,000	12,803,583	3,228,249
Bain Capital Fund IX	Buyouts	4/10/2006	75,000,000	72,937,500	7,563,269
Bain Capital Fund X	Buyouts	1/15/2008	90,000,000	35,325,000	3,177,534
Bain Capital IX Coinvestment Fund	Buyouts	4/20/2006	15,000,000	14,550,000	637,176
Bain Capital X Coinvestment Fund	Buyouts	7/28/2008	5,000,000	700,000	0
Bain Capital Asia Fund	Distressed Debt	10/18/2007	12,000,000	7,620,000	0
Bain Capital Europe III	Buyouts	7/10/2008	76,555,500	15,587,763	0
Sankaty Credit Opportunities III	Distressed Debt	3/8/2007	50,000,000	50,000,000	563,636
Sankaty Credit Opportunities IV	Distressed Debt	7/15/2008	40,000,000	28,000,000	6,176,260
17. Baring India Private Equity Fund III Limited	Mid Market Buyouts	10/10/2008	5,000,000	510,689	261,932
Baring Vostok Private Equity Fund IV	Buyouts	3/10/2008	30,000,000	13,041,368	68,386
18. Battery Ventures VIII Side Car Fund	Diversified	8/29/2008	9,000,000	4,971,600	0
19. BC European Capital VII	Buyouts	7/28/2000	37,740,202	37,754,746	71,330,436
BC European Capital VII Top Up	Buyouts	7/2/2001	12,278,596	12,278,596	21,770,621
BC European Capital VIII	Buyouts	12/13/2005	97,635,000	82,709,979	4,429,601
BC European Capital IX	Buyouts	*	26,494,000	0	0
20. Berkshire Fund VI	Mid Market Buyouts	7/11/2002	20,000,000	18,297,614	19,442,807
Berkshire Fund VII	Mid Market Buyouts	11/15/2006	32,000,000	15,682,854	3,877,536
21. Blackstone Capital II	Buyouts	9/30/1994	40,000,000	42,862,357	93,487,830
Blackstone Capital III	Buyouts	11/3/1997	75,000,000	77,242,310	115,712,550
Blackstone Capital IV	Buyouts	2/26/2003	75,000,000	64,452,925	103,698,112
Blackstone Capital Partners V	Buyouts	5/30/2006	150,000,000	134,234,382	8,403,077
Blackstone Communications Partners I	Buyouts	8/29/2000	25,000,000	24,806,956	20,987,871
22. Brait IV	Mid Market Buyouts	12/11/2006	25,000,000	16,572,680	597,087
23. Brynwood Partners V	Mid Market Buyouts	7/31/2005	10,000,000	9,434,660	1,993,011
Brynwood Partners VI	Mid Market Buyouts	10/13/2009	10,000,000	1,949,631	23,112
24. Centerbridge Capital Partners I	Distressed Debt	2/27/2007	50,000,000	45,196,256	6,411,364
25. Cerberus Institutional Partners	Distressed Debt	3/5/1999	35,000,000	35,000,000	76,576,855
Cerberus Institutional Partners Series Two	Distressed Debt	10/9/2001	35,000,000	30,100,793	69,789,110
Cerberus Institutional Partners Series Three	Distressed Debt	11/13/2003	35,000,000	22,321,354	15,142,120
Cerberus Institutional Partners Series Four	Distressed Debt	11/27/2006	75,000,000	61,875,000	0

Active Private Equity Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
26. Charterhouse Capital Partners VII	Buyouts	1/17/2003	\$52,120,000	\$54,005,850	\$86,164,523
Charterhouse Capital Partners VIII	Buyouts	4/19/2006	74,400,000	65,680,887	0
Charterhouse Capital Partners IX	Buyouts	4/28/2009	79,290,000	11,925,816	0
27. Charterhouse Equity Partners II	Buyouts	3/31/1994	40,000,000	43,908,228	100,919,498
28. Charterhouse Equity Partners III	Buyouts	12/31/1997	50,000,000	55,395,586	75,000,205
29. Chequers Capital XV	Buyouts	7/5/2006	31,434,000	23,249,767	934,078
30. CID Greater China Venture Capital Fund II	Early Stage	8/10/2007	20,000,000	15,200,000	5,922,676
31. Clayton Dubilier & Rice V	Buyouts	6/30/1995	50,000,000	49,756,029	49,826,483
Clayton Dubilier & Rice VI	Buyouts	12/31/1998	50,000,000	36,211,768	55,410,949
32. Clessidra Capital Partners II	Buyouts	11/5/2008	31,716,000	5,291,399	3,150
33. Code Hennessy & Simmons	Mid Market Buyouts	9/28/1989	10,000,000	9,650,000	29,205,907
Code Hennessy & Simmons III	Mid Market Buyouts	9/30/1997	40,000,000	38,724,000	55,634,838
Code Hennessy & Simmons IV	Mid Market Buyouts	9/16/1999	100,000,000	100,000,000	154,467,581
Code Hennessy & Simmons V	Mid Market Buyouts	11/10/2005	50,000,000	45,821,458	5,488,231
34. Cognetas Fund II	Buyouts	11/2/2005	49,468,400	40,854,674	2,566,249
35. CVI Global Value Fund	Distressed Debt	2/23/2007	60,000,000	57,151,667	825,601
36. DLJ Merchant Banking Fund II	Buyouts	3/31/1997	75,000,000	83,261,423	100,717,306
DLJ Merchant Banking Fund III	Buyouts	8/14/2001	85,000,000	86,989,557	118,650,601
37. Elevation Partners	Private Equity	11/10/2005	35,000,000	28,836,660	13,838,085
38. Energy Spectrum Partners IV	Mid Market Buyouts	12/15/2004	50,000,000	51,478,024	24,688,101
Energy Spectrum Partners V	Mid Market Buyouts	7/9/2007	30,000,000	19,705,262	8,381,575
39. Eureka II	Small Buyouts	1/30/2006	20,000,000	12,655,753	1,063,386
40. Excelsior Capital Asia Partners III	Growth Equity	8/17/2006	25,000,000	17,998,748	1,034,121
41. First Reserve Fund X	Buyouts	10/28/2004	30,000,000	30,000,000	37,280,187
First Reserve Fund XI	Buyouts	12/14/2006	60,000,000	46,404,862	2,057,748
First Reserve Fund XII	Buyouts	11/19/2008	50,000,000	21,716,228	1,931,523
42. Francisco Partners	Mid Market Buyouts	7/27/2000	50,000,000	47,825,987	41,370,002
Francisco Partners II	Mid Market Buyouts	7/10/2006	30,000,000	26,325,000	6,638,868
Francisco Partners III	Mid Market Buyouts	*	20,000,000	0	0
43. Frontenac VII	Buyouts	9/30/1997	40,000,000	40,000,000	55,727,112
44. Great Hill Equity Partners	Mid Market Buyouts	4/12/1999	30,000,000	30,000,000	29,994,856
Great Hill Equity Partners II	Mid Market Buyouts	3/28/2001	35,000,000	35,063,336	59,668,235
Great Hill Equity Partners III	Mid Market Buyouts	3/7/2006	35,000,000	33,320,000	4,200,000
Great Hill Equity Partners IV	Mid Market Buyouts	9/8/2008	25,000,000	7,425,000	0
45. Gryphon Partners II	Mid Market Buyouts	11/3/1999	35,000,000	34,074,092	30,294,419
Gryphon Partners III	Mid Market Buyouts	9/8/2004	30,000,000	25,920,899	10,370,620
46. GTCR V	Buyouts	3/31/1997	11,400,000	11,400,000	20,502,976
GTCR VI	Buyouts	9/30/1998	50,000,000	50,000,000	41,712,557
GTCR VII	Buyouts	3/15/2000	55,000,000	50,074,671	121,729,912
GTCR VIII	Buyouts	7/7/2003	75,000,000	69,393,599	88,754,849
GTCR IX	Buyouts	12/1/2006	50,000,000	38,671,260	3,161,153
47. H.I.G. Bayside Debt & LBO Fund II	Distressed Debt	6/17/2008	30,000,000	10,550,000	1,332,588
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Active Private Equity Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
48. HarbourVest IPEP II	Fund of Funds	6/30/1997	\$25,000,000	\$24,500,000	\$33,043,377
HarbourVest IPEP III	Fund of Funds	6/30/1998	40,000,000	38,800,000	46,707,083
HarbourVest IPEP IV	Fund of Funds	4/9/2001	40,000,000	37,400,000	34,491,373
HIPEP V-Asia Pacifc & Rest of World	Buyouts	5/9/2006	30,000,000	19,245,316	1,137,931
Dover Street VII	Secondaries	7/2/2008	30,000,000	9,620,287	419,897
49. Hellman & Friedman IV	Buyouts	2/14/2000	75,000,000	67,317,209	176,818,041
Hellman & Friedman V	Buyouts	12/20/2004	80,000,000	70,932,769	84,726,429
Hellman & Friedman VI	Buyouts	6/5/2007	125,000,000	93,032,927	5,006,474
50. InterMedia Partners VII	Diversified	1/5/2007	15,000,000	14,237,428	158,518
51. Invemed Catalyst Fund	Mid Market Buyouts	10/19/1999	15,502,783	13,983,456	11,020,707
52. J.H. Whitney V	Later Stage	3/29/2001	20,000,000	23,307,275	40,932,059
J.H. Whitney VI	Buyouts	1/5/2006	50,000,000	44,361,990	8,221,368
J.H. Whitney VII	Buyouts	*	25,000,000	0	0
53. J.W. Childs Equity Partners III	Mid Market Buyouts	8/20/2002	40,000,000	39,836,186	30,281,201
54. JP Morgan US Corp Finance Investors II	Fund of Funds	1/14/2003	50,000,000	50,091,285	24,612,724
55. Kelso VII	Buyouts	10/18/2004	40,000,000	39,443,518	17,202,231
Kelso VIII	Buyouts	11/29/2007	150,000,000	39,379,111	2,938,325
56. Landmark Equity IV	Secondaries	3/31/1995	14,923,291	12,495,850	18,587,584
Landmark Equity V	Secondaries	12/31/1995	19,624,113	19,434,947	23,435,898
57. Leeds Equity Partners IV	Mid Market Buyouts	11/12/2004	20,000,000	19,867,964	7,492,443
58. Lexington Capital Partners II	Secondaries	6/30/1998	40,000,000	39,538,000	48,171,385
Lexington Capital Partners III	Secondaries	1/26/1999	35,000,000	34,516,449	38,567,481
Lexington Capital Partners V	Secondaries	1/17/2002	75,000,000	74,132,023	88,916,349
Lexington Capital Partners VI	Secondaries	10/21/2005	50,000,000	44,779,592	11,699,804
59. Lime Rock Partners III	Later Stage	3/7/2005	15,000,000	14,684,503	2,886,836
Lime Rock Partners IV	Later Stage	11/16/2006	25,000,000	20,187,806	103,364
Lime Rock Partners V	Later Stage	10/2/2008	42,500,000	22,911,407	19,089
Lime Rock Resources	Diversified	12/28/2005	20,000,000	18,806,344	5,995,499
60. LLR Equity Partners	Mid Market Buyouts	2/4/2000	25,000,000	24,357,320	47,151,516
LLR Equity Partners II	Mid Market Buyouts	1/29/2004	25,000,000	25,000,000	7,651,511
LLR Equity Partners III	Mid Market Buyouts	7/24/2008	30,000,000	10,208,721	1,867,995
61. Madison Dearborn Capital Partners II	Buyouts	3/31/1997	40,000,000	39,999,996	93,232,382
Madison Dearborn Capital Partners III	Buyouts	4/6/1999	75,000,000	75,186,728	106,102,972
Madison Dearborn Capital Partners IV	Buyouts	4/2/2001	90,000,000	90,372,035	81,852,761
Madison Dearborn Capital Partners V	Buyouts	12/14/2006	75,000,000	65,873,474	3,294,276
Madison Dearborn Capital Partners VI	Buyouts	5/27/2008	50,000,000	12,028,157	0
62. Matlin Patterson Global Opportunities Partners	Distressed Debt	5/31/2001	35,000,000	30,091,262	52,596,927
Matlin Patterson Global Opportunities Partners II	I Distressed Debt	6/30/2004	30,000,000	30,410,597	10,578,309
63. Media/Communications III	Buyouts	6/30/1997	25,000,000	23,750,000	37,704,073
Media/Communications IV	Buyouts	3/31/1999	25,000,000	23,125,000	5,010,893
Media/Communications V	Buyouts	9/27/2000	35,000,000	34,812,205	30,154,377
64. Meridian Venture Partners II	Buyouts	2/11/2005	10,000,000	10,000,000	823,344
	,		•	*	•

	Active Private Equity Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
65.	New York Life Capital Partners III	Co-investments	6/30/2006	\$50,000,000	\$49,899,153	\$7,230,197
	New York Life Capital Partners IV	Co-investments	4/4/2008	50,000,000	26,401,553	7,045
66.	Nordic Capital V	Buyouts	5/7/2004	40,000,000	45,267,886	17,525,584
	Nordic Capital VI	Buyouts	7/25/2006	54,441,000	59,539,883	49,656
	Nordic Capital VII	Buyouts	5/2/2008	100,237,900	35,367,450	0
67.	Oakhill Capital Partners	Buyouts	5/17/1999	50,000,000	53,683,590	76,598,219
68.	Oaktree Capital Management	Diversified	5/28/2004	40,000,000	40,581,778	38,681,569
	OCM Opportunities Fund	Distressed Debt	1/31/1996	24,000,000	24,000,000	39,136,887
	OCM Opportunities Fund II	Distressed Debt	3/31/1998	40,000,000	40,000,000	60,097,978
	OCM Opportunities Fund III	Distressed Debt	1/20/2000	60,000,000	60,007,890	88,890,116
	OCM Opportunities Fund IV	Distressed Debt	9/26/2001	70,000,000	70,000,000	115,350,030
	OCM Opportunities Fund V	Distressed Debt	8/12/2004	40,000,000	40,003,507	53,923,825
	OCM Opportunities Fund VI	Distressed Debt	9/28/2005	40,000,000	40,000,000	26,006,292
	OCM Opportunities Fund VII	Distressed Debt	5/16/2007	40,000,000	40,000,000	12,234,048
	OCM Opportunities Fund VIIb	Distressed Debt	6/3/2008	40,000,000	36,000,000	0
	OCM Opportunities Fund VIII	Distressed Debt	9/20/2010	12,500,000	5,395,925	0
	OCM Opportunities Fund VIIIb	Distressed Debt	*	12,500,000	0	0
	OCM Principal Opportunities II	Distressed Debt	4/24/2001	25,000,000	25,000,000	35,038,479
	OCM Principal Opportunities IV	Distressed Debt	1/24/2007	20,000,000	20,000,000	2,640,588
	OCM/GFI Power Opportunities Fund II	Buyouts	5/9/2005	25,000,000	13,439,832	25,634,202
	Oaktree Power Opportunities Fund III	Buyouts	*	25,000,000	0	0
69.	Palamon European Equity	Buyouts	7/23/1999	36,305,881	36,115,379	38,560,281
	Palamon European Equity II	Diversified	10/25/2005	40,114,200	30,566,673	3,270,841
70.	Parthenon Investors II	Mid Market Buyouts	8/9/2001	20,000,000	22,038,045	20,427,123
71.	Patriot Financial Partners	Mid Market Buyouts	6/12/2008	25,000,000	13,767,767	146,667
72.	Permira European Fund	Buyouts	9/30/1997	33,789,023	32,159,947	84,005,717
	Permira European Fund II	Buyouts	6/7/2000	47,979,751	45,672,612	78,101,935
	Permira European Fund III	Buyouts	1/12/2004	112,640,170	125,077,125	160,726,110
	Permira IV	Buyouts	12/14/2006	126,870,000	97,030,170	0
	Permira UK Venture Fund III	Middle/Later Stage	3/31/1991	9,063,438	8,946,988	26,106,191
	Permira UK Venture Fund IV	Middle/Later Stage	12/31/1995	15,000,000	15,993,572	22,721,533
73.	Pitango Venture Capital Fund IV	Diversified	7/19/2004	20,000,000	17,401,534	4,826,274
	Pitango Venture Capital Fund V	Seed/Early Stage	8/22/2007	30,000,000	11,250,000	0
74.	PNC Equity Partners II	Mid Market Buyouts	8/30/2007	15,000,000	10,393,090	89,457
75.	Providence Equity Partners IV	Mid Market Buyouts	11/27/2000	25,000,000	23,398,494	33,944,337
	Providence Equity Partners V	Mid Market Buyouts	4/4/2005	45,000,000	41,358,512	2,386,279
	Providence Equity Partners VI	Buyouts	3/16/2007	50,000,000	35,369,981	813,492
76.	SCP Private Equity Partners II	Buyouts	6/15/2000	25,000,000	24,526,021	5,972,493
77.	Segulah IV	Mid Market Buyouts	9/25/2008	15,688,890	5,587,293	0
	SFC Energy Partners I	Buyouts	7/27/2007	25,000,000	11,974,955	768,231
	SFC Energy Partners II	Buyouts	*	25,000,000	0	0

Active Private Equity Funds Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
79. ShoreView Capital Partners	Buyouts	6/16/2003	\$38,000,000	\$30,878,791	\$31,860,239
ShoreView Capital Partners II	Buyouts	3/27/2008	40,000,000	15,102,770	1,155,178
80. Siguler Guff BRIC Opportunities Fund	Fund of Funds	5/8/2006	10,000,000	8,958,299	1,849,775
Siguler Guff BRIC Opportunities Fund II	Fund of Funds	4/9/2008	25,000,000	10,730,575	72,541
81. Sterling Capital Partners I	Buyouts	10/31/2002	15,000,000	14,979,168	15,657,463
Sterling Capital Partners II	Buyouts	8/18/2005	30,000,000	29,086,956	9,352,141
Sterling Capital Partners III	Buyouts	8/13/2007	32,000,000	18,847,145	0
82. Summit Partners Private Equity Fund VII	Buyouts	2/9/2006	97,134,500	66,051,464	9,219,748
Summit Ventures VI	Later Stage	3/23/2001	62,000,000	63,343,733	54,205,850
83. TA IX	Later Stage	9/20/2000	45,000,000	43,650,000	76,378,116
TA X	Middle/Later Stage	4/25/2006	70,000,000	67,550,000	14,000,000
84. Thomas H. Lee Equity Fund V	Buyouts	7/3/2001	100,000,000	103,805,572	110,742,239
Thomas H. Lee Equity Fund VI	Mid Market Buyouts	11/14/2006	50,000,000	32,277,170	555,740
85. TPG Partners II	Buyouts	6/30/1997	75,000,000	72,111,267	127,798,284
TPG Partners III	Buyouts	1/13/2000	75,000,000	64,119,169	140,511,744
TPG Partners IV	Buyouts	12/29/2003	30,000,000	27,844,591	18,616,227
TPG Partners V	Buyouts	6/27/2006	100,000,000	86,434,710	5,618,783
TPG Partners VI	Buyouts	5/22/2008	45,000,000	13,318,617	53,917
Newbridge Asia III	Buyouts	2/15/2001	15,000,000	14,438,357	50,786,526
Newbridge Asia IV	Buyouts	9/27/2005	40,000,000	37,818,791	29,295,994
TPG Asia V	Buyouts	2/19/2008	22,500,000	7,259,345	1,228,985
86. UMS Partners Fund I	Distressed Debt	2/15/2005	5,000,000	5,000,000	3,004,752
87. Versa Capital Partners	Distressed Debt	10/16/2005	20,000,000	20,611,753	9,471,330
Versa Capital Partners II	Distressed Debt	7/31/2008	15,000,000	2,639,170	0
88. Vestar Capital Partners III	Buyouts	6/30/1997	25,000,000	24,362,534	23,541,126
Vestar Capital Partners IV	Mid Market Buyouts	1/25/2000	100,000,000	96,823,787	115,776,371
Vestar Capital Partners V	Mid Market Buyouts	1/25/2006	50,000,000	42,556,049	3,398,175
89. W Capital Partners II	Secondaries	8/8/2007	40,000,000	22,827,138	4,257,093
90. Yucaipa American Alliance Fund II	Mid Market Buyouts	1/13/2009	25,000,000	15,693,506	1,611,724
Total Active Private Equity			\$9,582,785,527	\$7,776,168,843	\$6,368,064,968

<sup>\*</sup>Not Funded as of 9/30/10

Commitments as of 12/31/10 Cash flows as of 9/30/10

## **Inactive Private Equity Funds**

	Capital		
	Committed	Capital Drawn	Distributions
<b>Total Inactive Private Equity</b>	\$512,567,585	\$492,201,439	\$851,220,584

Inflation Protection is one of six major asset classes that SERS uses for investments of the Fund. The objective of this asset class is to reduce the deleterious affects of inflation by investing in strategies that specifically respond to expected and unexpected inflation. In accordance with SERS' investment plan, SERS contracts with external investment advisors to manage portfolios.

Investment Objective: Inflation Protection investments are employed by the Fund to provide diversification within the total Fund and to act as a hedge against inflation. The asset class is composed of actively managed commodities; and a diversified inflation protection portfolio that includes commodities, inflation–sensitive stocks, and bonds. The strategies that make up the asset class were chosen for their inflation protection properties; commodities historically have the highest correlation to inflation. The Inflation Protection strategies also provide diversification and low correlation to other assets in the portfolio, and are expected to outperform stocks and bonds during periods of rising inflation, but may underperform when inflation is stable or falling.

SERS' long-term investment objective in the Inflation Protection asset class is to achieve a total return, net of fees, that exceeds the total return of the SERS Custom Inflation Protection Benchmark. SERS' **2010** Annual Strategic Investment Plan targets a long-term allocation of 4.0% of assets to Inflation Protection. Within this 4.0% allocation, 50.0% is targeted to the active diversified inflation protection portfolio, and the remaining 50.0% is targeted to the active multimanager commodity portfolio.

Market Exposure as of December 31, 2010: Inflation Protection strategies had a \$1.1 billion market exposure, 4.2% of the total Fund's \$25.9 billion.

**Number of Investment Advisors**: SERS had contracts with two external investment advisors.

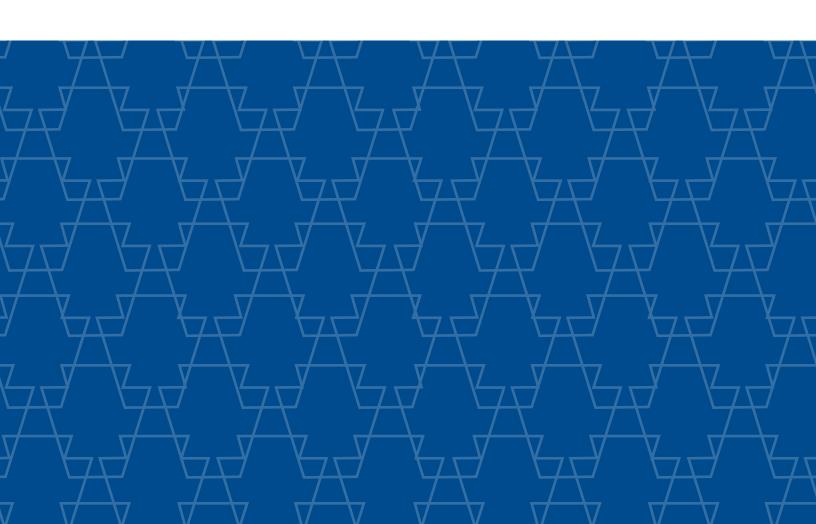
**Types of Investment Portfolios**: As of December 31, 2010, 46.4% of SERS' Inflation Protection allocation was invested in the actively managed diversified inflation protection portfolio which invests in commodities, inflation–sensitive global equity and TIPS. The remaining 53.6% was in the multi–manager commodity product, which employs five underlying commodities managers across the various commodity sectors (energy, precious metals, industrial metals and agriculture).

	Inflation Protection Investment Advisor	Investment Style	Market Exposure As of 12/31/10* (\$ millions)
1.	Wellington Management Company	Diversified inflation protection portfolio	\$508.5
2.	Blackstone Alternative Asset Management	Fund-of-commodity funds	587.7
	<b>Total Inflation Protection Investments</b>		\$1,096.2

<sup>\*</sup>Includes securities and cash that the manager had available for investment. Numbers may not add due to rounding.

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# **Actuarial Section**





#### Hay Group. Inc.

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April 27, 2011

Mr. Leonard M. Knepp Executive Director State Employees' Retirement System 30 North Third Street Suite 150 Harrisburg, PA 17101-1716

# HayGroup<sup>®</sup>

Dear Mr. Knepp:

The purpose of this letter is to certify the actuarial adequacy of the contributions being made by the Commonwealth of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System (SERS), and to discuss the approach currently being taken toward meeting the financing objectives of the plan. The results provided herein are based upon the December 31, 2010 annual actuarial valuation.

The funding objective of the plan is set forth in the SERS code. The annual employer contribution is equal to the sum of the following for the fiscal year beginning July 1, 2011:

- (1) The employer share of the normal cost.
- (2) The fresh start amortization of the December 31, 2009 unfunded liability over a 30-year period beginning July 1, 2010 and ending on June 30, 2040.
- (3) The amortization of the change in liability due to Act 2010-120 over a 30-year period beginning July 1, 2011 and ending on June 30, 2041.
- (4) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2009 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.

The amortization payments are level amounts over the remaining applicable amortization periods. The employer cost is determined as a percent of payroll. The total employer cost is the average contribution amount that needs to be received from the employer groups participating in the system. Some employer groups contribute a higher percent of pay, and some employer groups contribute a lower percent of pay depending on the benefits payable to their employees.

All costs and liabilities have been determined in conformance with generally accepted actuarial principles and procedures in accordance with the principles of practice prescribed by the American Academy of Actuaries. The calculations were performed on the basis of actuarial assumptions and methods, which are internally consistent, and reasonable (taking into account past experience under SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

The actuarial valuation is based on financial and participant data, which is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to their use in the actuarial valuation.

Mr. Leonard M. Knepp April 27, 2011 Page 2

The actuarial valuation uses assumptions regarding future rates of investment return and rates of retirement, withdrawal, death, and disability among SERS members and their beneficiaries. The current set of assumptions used in the December 31, 2010 actuarial valuation was adopted by the Board and was based on actual experience of SERS during the years 2006 through 2010. The investment data analyzed during the experience study supported the continued use of an 8.0% investment return in the December 31, 2010 actuarial valuation. We continue to closely monitor this assumption and will recommend changing it if the investment data warrants such change. The actuarial value of assets is developed by recognizing the difference between the expected actuarial value of assets and the market value of assets over a five-year period.

Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The scheduled payments since July 1, 2005 have been below the minimum amount required to meet the GASB #25 minimum. Previously this was a result of financing changes implemented by Act 2003-40 in December 2003. Currently this is a result of the contribution collars required under Act 2010-120. After June 30, 2015, provided that employer contributions are made in accordance with current law, we expect employer contributions to exceed the GASB #25 minimum.

The "Schedule of Funding Progress" and "Schedule of Employer Contributions" included in the Financial Section are provided as part of the accounting disclosure statements in accordance with GASB #25. These two schedules were derived from the December 31, 2010 actuarial valuation.

With the exception of the "Schedule of Retirees and Beneficiaries Added to and Removed from Rolls" and the "Summary of Plan Provisions", the schedules appearing in the Actuarial Section were derived from the December 31, 2010 actuarial valuation.

Based upon the valuation results, it is our opinion that, provided future employer contributions are made in accordance with current law, the Pennsylvania State Employees' Retirement System is in sound condition in accordance with generally accepted actuarial principles and procedures. The employer contribution has been below the GASB #25 minimum since July 1, 2005 and will likely remain below the minimum through June 30, 2015. Thereafter, we expect SERS contributions to exceed the GASB #25 minimum.

It should be noted that, with the recent passage of Act 2010-120 (Act 120), significant reform to many key provisions of SERS has been legislated. This was a responsible and greatly needed response to the significant funding challenges SERS has been facing in recent years, and will continue to face in coming years. By reducing pensions for future Commonwealth employees and providing funding relief to SERS employers through the use of contribution collars, Act 120 addressed both SERS' long-term and short-term funding challenges.

As actuaries for SERS, Hay Group considers it important to note that the establishment of contribution collars results in employer funding for FY2012 (and likely for the next few years) at levels below the otherwise applicable actuarially required funding levels. This is

Mr. Leonard M. Knepp April 27, 2011 Page 3

not to say that required employer contributions will never be made; rather, Act 120 provides that they will be deferred and paid in future years. It is therefore essential to the long-term funding of the system that the Commonwealth adhere not only to the short-term collars provided by Act 120 but also to the long-term funding obligations that the statute established. We expect that the contribution collars will govern employer contribution levels for at least the next few years, and this will continue to be the case until such time as the actuarially determined annual employer funding requirement is below the collared contribution level. While Hay Group would prefer that SERS funding be based upon our actuarially determined funding level, we recognize, given the extraordinary funding challenges the Commonwealth of Pennsylvania is facing over coming years, that the contribution collars represent an important and necessary funding deferral mechanism for a temporary period, after which funding on an actuarial basis will resume.

Adam J. Reese, F.S.A.

Enrolled Actuary No. 11-4303

Member American Academy of Actuaries

Respectfully submitted, Hay Group, Inc.

Brent M. Mowery, F.S.A.

Member American Academy of Actuaries

Enrolled Actuary No. 11-3885

Craig R. Graby

Member American Academy of Actuaries

Enrolled Actuary No. 11-7319

- The investment rate of return is 8.0% per year based on an underlying rate of inflation of 2.75% per year.
- The Plan uses a five-year smoothed market approach to value plan assets for actuarial purposes.
- Actuarial methods are specified by statute.
   Actuarial assumptions are recommended by the Plan's actuary and approved by the SERS Board.
- For current and future non-disabled retirees, Beneficiaries, and survivors, the Plan uses the RP-2000 Healthy Annuitant Mortality Table projected to 2008 and updated to reflect the actual SERS experience through 2010. For current and future disabled retirees, the Plan uses the RP-2000 Disabled Retiree Annuitant Mortality Table projected to 2008 and updated to reflect actual SERS experience through 2010. For all preretirement Active Members, the mortality is based on actual SERS experience.
- The rates for probability of retirement and the probabilities of withdrawal from active service, including death, before age and service retirements are presented in the Schedule of Active Member Valuation Data.
- The projected average salary increase is 6.2% with a range of 4.3% to 11.05%. This increase includes an underlying assumption of 2.75% for inflation. The annual rate of salary increase for promotions and longevity for members is presented in the Schedule of Active Member Valuation Data.
- The Plan uses a variation of the entry-age normal actuarial cost method to determine the liabilities and costs related to the System's benefits. The method is based on the benefits and contributions for new members rather than for all current

members from their date of entry. This variation should produce approximately the same results as the typical method over the long run. The Plan uses amortization periods of 30 years as follows:

- (1) Act 2010-120 established a Fresh Start amortization of the December 31, 2009 unfunded liability over a 30-year period beginning July 1, 2010 and ending June 30, 2040.
- (2) The amortization of the change in liability due to Act 2010-120 over a 30-year period beginning July 1, 2011 and ending on June 30, 2041.
- (3) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2009 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.
- The Plan does not use an assumption for costof-living adjustments in the determination of actuarial valuations.
- Every five years, the Plan's actuary prepares a study using actual experience in order to develop assumptions to be used in its actuarial valuations. The latest study was completed January 12, 2011, for the period January 1, 2006, through December 31, 2010.
- The most recent valuation was based on members of the Plan as of December 31, 2010. All census data was supplied by the Plan and was subject to reasonable consistency checks. Asset data was also supplied by the Plan.
- The actuarial computations were prepared by, or made under the supervision, of a Member of the American Academy of Actuaries (M.A.A.A.).

Table A<sup>1/</sup>
Withdrawal From Active Employment Before Age & Service Retirement
Annual Rate of Active Members Separating Within the Next Year

_	Male								Fe	emale		
Sample Age	With	drawal \	ears of S	ervice	Death	Disability	With	ndrawal \	Years of S	ervice	Death	Disability
	0	5	9	14+		_	0	5	9	14+		
20	20.70%	-	-	-	0.04%	-	22.40%	-	-	-	0.02%	-
25	16.20	0.80%	0.80%	-	0.04	0.02%	20.50	2.70%	1.90%	-	0.02	0.04%
30	13.90	0.80	0.60	0.60%	0.05	0.07	17.90	2.40	1.70	1.80%	0.02	0.09
35	13.60	0.70	0.40	0.40	0.06	0.12	12.80	1.90	1.20	1.30	0.03	0.16
40	13.00	0.50	0.40	0.40	0.08	0.19	10.00	1.90	0.70	0.50	0.04	0.21
45	12.10	0.50	0.20	0.20	0.12	0.33	9.80	1.80	0.70	0.50	0.06	0.33
50	11.30	0.50	0.20	0.20	0.22	0.46	9.80	1.80	0.40	0.50	0.09	0.50
55	11.30	0.60	0.60	0.60	0.27	0.60	9.80	1.50	1.20	1.20	0.14	0.63
60	-	-	-	-	0.32	-	-	-	-	-	0.24	-

Table B<sup>1/</sup>
Annual Rate of Retirement

Table C
Annual Rate of Salary Increase

Full Benefits		Completed		Completed		
Sample Age	Male	Female	Years of Service	Increase	Years of Service	Increase
53	25.0%	23.0%	1	8.0%	15	2.6%
54	26.0	23.0	2	6.0	16	2.5
55	27.0	23.0	3	4.5	17	2.4
56	28.0	23.0	4	4.0	18	2.3
57-59	30.0	23.0	5	3.8	19	2.2
60	25.0	25.0	6	3.5	20	2.1
61	20.0	20.0	7	3.3	21	2.0
62	25.0	25.0	8	3.2	22	1.9
63-64	20.0	20.0	9	3.2	23	1.8
65	25.0	25.0	10	3.1	24	1.7
66-79	20.0	20.0	11	3.0	25	1.6
80	100.0	100.0	12	2.9	26	1.5
			13	2.8	27	1.4
			14	2.7	28+	1.3

15 or More

Table D
Reduced Benefits

_	Years o	f Service	_	Years o	f Service
Sample Age	Male	Female		Male	Female
25	1.0%	1.0%	_	-	-
30	1.5	1.5		-	-
35	1.5	1.5		1.5%	1.5%
40	1.0	1.0		1.5	1.5
45	1.0	1.0		1.5	1.5
50	1.0	1.0		2.0	2.0
55	1.0	1.0		5.5	5.5

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<sup>1</sup>/The assumptions presented in Table A and Table B on this page were based on a review of SERS' experience from 2006 through 2010. The rates are the probabilities that an event will occur in the year after the valuation. For instance, the male retirement rate of 25% at age 62 means that 250 of every 1,000 male employees age 62 and eligible for full benefits are expected to retire before they reach age 63.

## **Active Members by Age and Years of Service - Male**

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Age Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus	Total	Average Salary
< 20	9	-	-	_	_	_	-	9	\$25,862
20 - 24	992	12	-	-	-	-	-	1,004	30,933
25 - 29	3,382	750	5	-	-	-	-	4,137	40,020
30 - 34	2,615	2,134	498	7	-	-	-	5,254	45,792
35 - 39	1,937	1,974	1,810	578	21	-	-	6,320	51,640
40 - 44	1,872	1,787	1,944	2,639	1,082	26	-	9,350	58,315
45 - 49	1,642	1,618	1,337	1,837	2,312	820	38	9,604	58,584
50 - 54	1,541	1,576	1,273	1,292	1,731	1,620	854	9,887	57,066
55 - 59	1,329	1,465	1,182	1,286	1,284	1,240	1,635	9,421	58,384
60 - 64	946	1,007	852	809	646	484	818	5,562	58,925
65+	385	403	326	275	155	119	302	1,965	62,838
Total	16,650	12,726	9,227	8,723	7,231	4,309	3,647	62,513	\$54,983

Average Age: 46.58 Average Service: 12.36

## **Active Members by Age and Years of Service - Female**

**Years of Service** 

A === C-112+112	0 4	F 0	10 14	15 - 19	20 24	25 20	20 Dl	Total	Average
Age Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus	Total	Salary
< 20	20	-	-	-	-	-	-	20	\$24,461
20 - 24	889	28	-	-	-	-	-	917	28,456
25 - 29	2,379	659	36	-	-	-	-	3,074	35,049
30 - 34	1,893	1,585	475	23	-	-	-	3,976	40,503
35 - 39	1,600	1,353	925	403	28	-	-	4,309	43,090
40 - 44	1,642	1,437	1,006	973	681	51	-	5,790	45,509
45 - 49	1,799	1,406	1,014	946	1,080	799	137	7,181	47,489
50 - 54	1,610	1,553	1,121	1,101	1,114	1,051	1,058	8,608	49,080
55 - 59	1,195	1,321	989	1,037	1,145	933	1,459	8,079	51,052
60 - 64	546	787	587	534	496	348	491	3,789	50,248
65+	154	198	190	146	115	76	120	999	48,951
Total	13,727	10,327	6,343	5,163	4,659	3,258	3,265	46,742	\$46,206

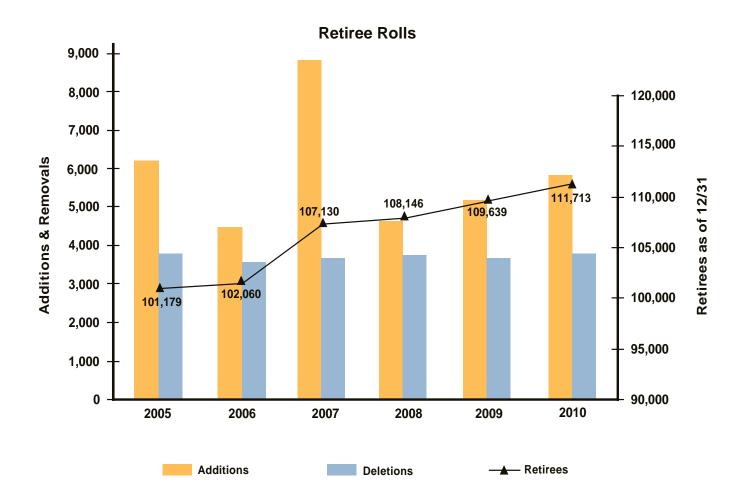
Average Age: 46.71 Average Service: 11.91

## **Aggregate Active Member Valuation Data**

Valuation Year Ended Dec 31	Number Employers	Number Active Members	Annual Payroll	Annual Average Pay	% Increase/(Decrease) in Average Pay
2010	106	109,255	\$5,597,000,000	\$51,228	0.8%
2009	106	110,107	5,595,000,000	50,813	3.8
2008	108	110,866	5,428,000,000	48,957	1.3
2007	108	109,610	5,299,000,000	48,345	4.8
2006	108	110,972	5,118,000,000	46,118	2.9
2005	108	109,981	4,929,000,000	44,815	-1.2

### Schedule of Retirees and Beneficiaries Added to and Removed from Rolls Six Years Ended December 31, 2010

	Ad	ded to Rolls	Remov	ed from Rolls	Rolls -	- End of Year	Percer	ntage Change
Year	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
2010	5,906	\$148,169,231	3,832	\$48,182,212	111,713	\$2,086,701,831	1.89%	5.01%
2009	5,278	125,610,303	3,785	45,195,072	109,639	1,987,109,540	1.38	4.19
2008	4,841	105,374,596	3,825	45,068,366	108,146	1,907,133,859	0.95	3.22
2007	8,761	234,585,550	3,691	42,238,843	107,130	1,847,681,816	4.97	11.58
2006	4,514	96,324,336	3,633	40,351,097	102,060	1,655,881,296	0.87	3.44
2005	6,298	149,935,613	3,846	40,984,887	101,179	1,600,772,520	2.48	7.22

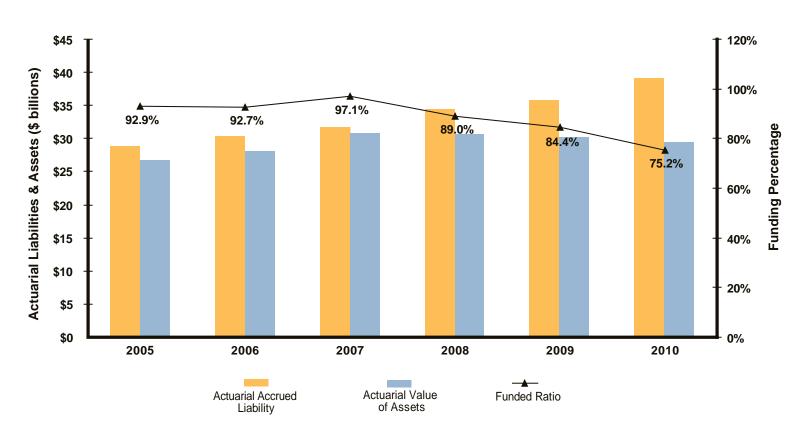


Solvency Test
Six Years Ended December 31, 2010
(Dollar Amounts in Thousands)

Aggregat	e Accrued Lia	bilities For
(1)	(2)	(3)

Valuation	A ations		Active Members				of Accrued I		
Valuation Year Ended Dec 31	Active Member Contributions	Retirees & Beneficiaries	(Employer Financed Portion)	Accrued Liability (AAL)	Actuarial Value of Assets	(1)	(2)	(3)	Funded Ratio
2010	\$4,409,444	\$18,995,355	\$15,774,795	\$39,179,594	\$29,443,945	100.0%	100.0%	38.3%	75.2%
2009	4,280,680	17,962,741	13,553,596	35,797,017	30,204,693	100.0	100.0	58.7	84.4
2008	4,068,036	17,305,971	13,063,389	34,437,396	30,635,621	100.0	100.0	70.9	89.0
2007	3,849,293	16,255,843	11,648,835	31,753,971	30,839,877	100.0	100.0	92.2	97.1
2006	3,916,841	14,474,525	11,973,631	30,364,997	28,148,834	100.0	100.0	81.5	92.7
2005	3,696,477	14,000,196	11,155,043	28,851,716	26,793,782	100.0	100.0	81.6	92.9

# **Fund Solvency**



# Gains & Losses in Accrued Liabilities Resulting from Differences Between Assumed Experience and Actual Experience (Dollar Amounts in Thousands)

Type of Activity	2010	2009	2008	2007
Gain/(Loss) from Investment Earnings	\$1,251,332	\$(1,118,036)	\$(1,094,334)	\$2,158,662
Changes in Demographics of New Entrants	64,191	11,597	(62,587)	113,435
Pay Increases Different than Assumptions	(421,224)	(84,681)	144,913	43,448
Retirements Different than Expected and Other Demographic Changes	98,384	37,289	365,487	(468,497)
Gain/(Loss) During Year from Financial Experience	992,683	(1,153,831)	(646,521)	1,847,048
Non Recurring Items:				
Changes in Actuarial Assumptions and Methods	-	-	$(1,634,988)^{1/}$	-
Changes in Economic Assumptions	$(235,734)^{2/}$			
Benefit changes under Act 2010-120	2,694,5353/			
Underfunding due to retroactive Fresh Start and other changes	741,2074/			
Composite Gain/(Loss)	\$4,192,691	\$(1,153,831)	\$(2,281,509)	\$1,847,048

<sup>&</sup>lt;sup>1</sup>/Adoption of an 8.0% annual investment return assumption effective December 31, 2008 (versus 8.5% assumed in prior years) resulted in this increase in accrued liability.

<sup>&</sup>lt;sup>2</sup>/ Revised annual inflation rate of 2.75% and salary growth rate of 3.05% due to 17<sup>th</sup> Investigation of Actuarial Experience.

<sup>&</sup>lt;sup>3</sup>/Act 2010-120 reduces benefits for most new members effective January 1, 2011 and new Legislators effective December 1, 2010.

<sup>&</sup>lt;sup>4</sup> Act 2010-120 re-amortizes the System's existing liabilites over 30 years through an Actuarial "Fresh Start."

# History and Projection of Contribution Rates and Funded Ratios<sup>17</sup> (Dollar Amounts in Thousands)

#### Contribution Rates<sup>2/</sup>

Valuation Year Ended Dec 31	Covered Payroll	Member Contribution Rate <sup>3</sup>	Employer Normal Cost Rate	Unfunded Liability Rate⁴⁄	Preliminary Employer Contribution Rate <sup>5/</sup>	Final Employer Contribution Rate	Funded Ratio
2001	\$4,872,375	5.00%	8.64%	(12.03)%	(3.39)%	0.00%	116.3%
2002	5,093,454	6.25	8.43	(7.39)	1.04	1.04	107.2
20036/	4,965,360	6.25	8.32	(11.12)	(2.80)	2.00	104.9
20046/	5,093,573	6.25	8.25	(7.29)	0.96	3.00	96.1
20056/	5,138,377	6.25	8.39	(6.32)	2.07	4.00	92.9
20067/	5,661,675	6.25	8.21	(6.30)	1.91	4.00	92.7
2007	5,529,069	6.25	8.42	(9.57)	(1.15)	4.00	97.1
2008	5,660,319	6.25	9.51	(5.88)	3.63	4.00	89.0
20098/	5,935,988	6.25	9.53	(3.89)	5.64	5.00	84.4
20109/	5,851,704	6.25	4.08	14.85	18.93	8.00	75.2
2011110/	6,030,200	6.25	4.08	17.56	21.64	11.50	70.2
2012	6,214,100	6.25	4.08	20.58	24.66	16.00	64.4
2013	6,403,600	6.25	4.08	19.62	23.70	20.50	65.3
2014	6,598,900	6.25	4.08	19.02	23.10	25.00	65.9
$2015^{11/}$	6,800,200	6.25	4.08	18.64	22.72	25.85	66.7
2016	7,007,600	6.25	4.08	18.19	22.27	25.36	67.8
2017	7,221,300	6.25	4.08	17.71	21.79	24.79	69.0
2018	7,441,600	6.25	4.08	17.26	21.34	24.24	70.2
2019	7,668,600	6.25	4.08	16.81	20.89	23.71	71.5
2020	7,902,500	6.25	4.08	16.38	20.46	23.20	72.7
2021	8,143,500	6.25	4.08	15.96	20.04	22.69	73.8

<sup>&</sup>lt;sup>1</sup>/The projection of contribution rates is based on the assumption that there are no changes in SERS statutory funding methodology, no changes in demographics or economic assumptions, no changes in benefit provisions, and no actuarial gains or losses on the actuarial value of assets that result from recognizing currently deferred gains or losses on the fair value of assets.

<sup>&</sup>lt;sup>2</sup>/Rates and values are for the fiscal year beginning July 1<sup>st</sup> following the valuation year and do not include the Benefit Completion Plan contribution.

<sup>&</sup>lt;sup>3</sup>/Member contribution rate is for Class AA employees as they comprise most of SERS membership.

<sup>&</sup>lt;sup>4</sup>/Act 2003-40 also imposed a split amortization that recognized COLAs and certain large gains over ten years, while recognizing other gains and losses over 30 years. The effect has been to suppress the unfunded liability rate for ten years ending in 2011.

<sup>&</sup>lt;sup>5</sup>/Actuarial rate before floor, collar, and a 0% minimum rate.

<sup>&</sup>lt;sup>6</sup>/Act 2003-40 amended the Retirement Code to place a floor of 2.00%, 3.00%, and 4.00% for fiscal years beginning July 1, 2004, 2005, and 2006, respectively, for the employer contribution rate.

<sup>&</sup>lt;sup>7</sup>/Act 2007-8 amended the Retirement Code to place a permanent floor of 4.00% on the employer contribution rate.

<sup>&</sup>lt;sup>§</sup>Act 2010-46 amended the Retirement Code to set the final employer contribution rate at 5.00% for fiscal year beginning July 1, 2010.

<sup>&</sup>lt;sup>9</sup>/Act 2010-120 amended the Retirement Code to place a collar on increases to employer contribution rate of 3.00% and 3.50% for fiscal years beginning July 1, 2011 and 2012, respectively. The employer contribution rate will be collared at 4.50% for fiscal year beginning July 1, 2013 and thereafter until collar becomes unnecessary.

<sup>&</sup>lt;sup>10</sup>/Numbers are projected from 2011 to 2021 based on 2010 actuarial valuation.

<sup>&</sup>lt;sup>11</sup>/Act 2010-120 amended the Retirement Code to place a permanent floor at Employer Normal Cost after collars expire.

## Benefit and Contribution Provisions

#### as of December 31, 2010

The State Employees' Retirement System makes provision for retirement, disability, and death benefits for all State employees, except for those specifically excluded under Section 5301 of the State Code, and certain other eligible groups. The major provisions may be summarized as follows:

#### **Eligible Employees**

#### Class A

All regular State employees, employees of certain Commissions and Authorities, employees of state-owned educational institutions, and the Pennsylvania State University (unless such employees have joined the Public School Employees' Retirement System (PSERS), TIAA-CREF, or Alternative Retirement Program (ARP) hired before July 1, 2001, who did not elect into the Class AA membership as of December 31, 2001. This excludes Judges and Magisterial District Judges who have elected Class E-1 or Class E-2.

#### Class AA

All regular State employees who are hired after June 30, 2001, and former Class A State employees hired before July 1, 2001, who elected into Class AA as of December 31, 2001. This includes employees of certain Commissions and Authorities, employees of state-owned educational institutions, and the Pennsylvania State University (unless such employees have joined PSERS, TIAA-CREF, or ARP), but excludes State Police Troopers, Judges, Magisterial District Judges and Class D-4 Legislators.

#### Class A-3 and A-4

Act 2010-120 created a new A-3 Class of Service and an optional A-4 Class for most employees who enter SERS membership for the first time on or after January 1, 2011. Act 120 became effective on other dates for certain groups of members as follows: for Legislators, December 1, 2010; Capitol Police Officers and Park Rangers, July 1, 2011; State Police Officers, July 1, 2012.

#### Class D-4

Legislators coming into service after June 30, 2001, who elect to be SERS members, and Legislators who elected Class D-4 before July 1, 2001.

#### Class E-1

Judges who elect Class E-1.

#### Class E-2

Magisterial District Judges who elect Class E-2.

# Age and Service Requirements for Superannuation (Full Formula Benefits)

#### Class AA/A

Age 60 with three years of service; except for members of the General Assembly, enforcement officers, correction officers, psychiatric security aids, and officers of the Delaware River Port Authority for whom the requirement is age 50 with three years of service. Members of Class AA/A with 35 years of credited service are entitled to full formula benefits regardless of age. State Police Officers can retire on full benefits after age 50 or with 20 years of service. Capitol Police and Park Rangers can retire on full benefits at age 50 with 20 years of Capitol Police or Park Ranger service.

#### Class A-3 and A-4

Age 65 for most members and age 55 for members of the General Assembly, enforcement officers, correction officers, psychiatric security aides, Delaware River Port Authority police officers, officers of the Pennsylvania State Police, and for Capitol Police Officers and Park Rangers with 20 or more years of credited service in the Classification. Members of Class A-3/A-4 are eligible for full formula benefits with 35 years of credited service with a superannuation score of 92.

#### Class D-4

Age 50, with three years of service.

#### Class E-1

Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

#### Class E-2

Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

#### Formula for Superannuation Annuity

The standard single-life annuity for most members is 2% of the high three-year average salary of the member multiplied by years and fractions of credited service multiplied by the Multiplier of the Class of membership.

The annuity paid to a member shall not exceed the member's highest salary during any period of 12 consecutive months of creditable service.

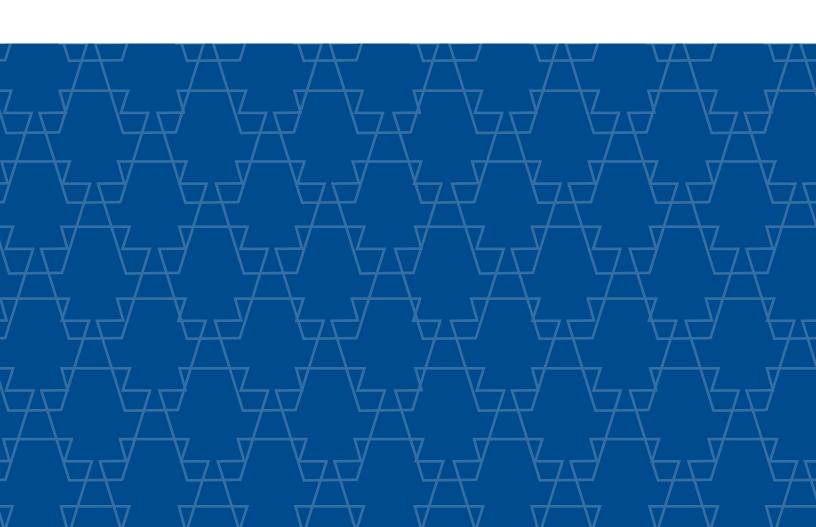
The multipier for each of the major classes are as follows:

#### **Multiplier for Major Classes**

Class	Multiplier	
A	1.00	For State Police with years of service between 20 and 25, the minimum annuity is 50% of highest annual salary. With more than 25 years of service the benefit is a minimum of 75% of highest annual salary.
AA	1.25	
A-3	1.00	
A-4	1.25	
D-4	1.50	
E-1	2.00	For each of the first ten years of judicial service dropping to 1.5 for each subsequent year of judicial service.
E-2	1.50	For each year of judicial service.

NOTE: There are conditions under which long-service members or members retiring at advanced ages may receive somewhat larger benefits than those described above. Further, benefit limitations exist for most members of SERS.

# **Statistical Section**





The Statistical Section of SERS' CAFR presents detailed information related to the financial statements, as well as highlights of actuarial valuations. The schedules within the Statistical Section are classified into the following four categories: Financial Trends, Revenue Capacity, Demographic and Economic Information, and Operating Information.

#### **Financial Trends**

The **Schedule of Trend Data** provides key financial, actuarial, and demographic data for ten years ended December 31, 2010. This data includes items such as employer and member contribution rates, contributions received by the System and benefits paid, fair value and actuarial value of assets, and the number of Annuitants, Beneficiaries, and Active Members.

The Schedule of Additions to Plan Net Assets presents the member and employer contributions, as well as the net investment income/loss for the ten years ended December 31, 2010. The System's investment returns have the most significant impact on plan net assets.

The Schedule of Deductions from Plan Net Assets presents the benefits, refunds of contributions, and administrative expenses for the ten years ended December 31, 2010. Of these three categories, the System's benefit payments have the most significant impact on the total deductions from plan net assets.

The Schedule of Benefit and Refund Deductions from Net Assets by Type presents the amount of benefit payments and refunds by type for the ten years ended December 31, 2010. Most benefit types are either superannuated or early which is determined by the number of years of service and/or age at retirement.

The Schedule of Total Changes in Plan Net Assets combines the additions to and deductions from plan net assets from the Schedule of Additions to Plan Net Assets and Schedule of Deductions from Plan Net Assets to arrive at net increase/decrease of changes in plan net assets for the ten years ended December 31, 2010.

#### **Revenue Capacity**

The **Schedule of Investment Income/Loss** presents the details of the total net investment gain/loss for the ten years ended December 31, 2010. The System has two outside sources of revenue and one own-source

(internal) of revenue. Employer contributions and member contributions, which information is provided for in the Schedule of Additions to Plan Net Assets, are the two outside sources of revenue, and investment income is the System's own-source revenue. Since investment income/loss has the greatest impact to the System, this schedule provides more detail on the major components of the investment income/loss, which is also disclosed in total on the Schedule of Additions to Plan Net Assets.

#### **Demographic and Economic Information**

The **Schedule of Active Member Statistics** provides the total number of Active Members, as well as the average age, average service, and average salary by gender.

#### **Operating Information**

The Schedule of Retired Members by Type of Benefit presents, for given benefit ranges, the total number of retirees, total monthly benefits and total number of retirees by retirement type as of December 31, 2010.

The **Schedule of Retired Members by Option** presents, for given benefit ranges, the total number of retirees, total monthly benefits and total number of retirees by retirement option as of December 31, 2010.

The Schedule of Average Monthly Benefit Payments presents, in five-year increments of Credited Service, the average monthly benefit, average Final Average Salary and number of retired members for the ten years ended December 31, 2010.

The **Schedule of Average Annual Benefit Payments** presents, in five-year age increments and by gender, the average annual benefit for each major retirement type as of December 31, 2010.

The **Schedule of SERS Agency Participation** provides the number of covered members and the corresponding percentage of participation for the 20 largest employers for the ten years ended December 31, 2010, as well as a listing of additional employers participating with SERS as of December 31, 2010.

Sources: Unless otherwise noted, the information for these schedules is derived from the Financial Section and Actuarial Section of the Comprehensive Annual Financial Report for the relevant year.

Schedule of Trend Data  $^{\nu}$  Ten Years Ended December 31, 2010

	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Contribution Rates:										
Employer <sup>2/</sup>	5.01%6/	$4.01\%^{5/}$	4.04%5/	4.04%5/	4.02%4/	3.02%4/	2.03%4/	1.07%	0.00%	0.00%
Member	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	5.00%
Contributions:										
Employer	\$273,083	\$253,250	\$235,288	\$243,936	\$196,420	\$148,375	\$106,703	\$68,604	\$50,831	\$76,710
Member	\$349,049	\$348,805	\$336,833	\$333,818	\$317,790	\$305,624	\$309,923	\$308,014	\$304,233	\$240,528
Average Annual Compensation	\$51,228	\$50,813	\$48,957	\$48,345	\$46,118	\$44,815	\$45,382	\$44,519	\$43,631	\$42,172
Fair Value of Assets	\$25,886,102	\$24,661,949	\$22,795,813	\$35,516,198	\$32,052,830	\$28,751,871	\$26,641,399	\$24,535,949	\$20,879,559	\$24,706,063
Actuarial Value of Assets	\$29,443,945	\$30,204,693	\$30,635,621	\$30,839,877	\$28,148,834	\$26,793,782	\$26,900,027	\$27,465,615	\$27,497,464	\$27,505,494
Accrued Actuarial Liability	\$39,179,594	\$35,797,017	\$34,437,396	\$31,753,971	\$30,364,997	\$28,851,716	\$27,999,026	\$26,179,761	\$25,650,389	\$23,658,757
Funded Ratio	75.2%	84.4%	89.0%	97.1%	92.7%	92.9%	96.1%	104.9%	107.2%	116.3%
Total Benefits and Refunds	\$2,449,253	\$2,273,372	\$2,204,579	\$2,336,368	\$1,919,426	\$1,943,643	\$1,859,255	\$1,632,281	\$1,430,417	\$1,245,129
Average Pension <sup>3/</sup>	\$23,491	\$22,695	\$21,965	\$21,326	\$20,025	\$19,372	\$18,414	\$17,192	\$15,445	\$13,656
Annuitants and Beneficiaries	111,713	109,639	108,146	107,130	102,060	101,179	98,727	94,412	91,228	89,217
Active Members	109,255	110,107	110,866	109,610	110,972	109,981	108,405	109,018	111,059	109,716
$^{_{1}\!\!/}$ All dollar amounts are in thousands, except Average Pension and Average Annual Compensation.	housands, exce	nt Average Pei	ision and Aver	ase Annual Co	mpensation.					

WAll dollar amounts are in thousands, except Average Pension and Average Annual Compensation.

<sup>&</sup>lt;sup>2</sup> Employer rate represents total contributions as a percent of covered payroll as of 12/31.

<sup>3</sup> Average pension amount represents average annual pension only for members who have reached superannuation through age or service credits.

<sup>4</sup> Act 40 of 2003 established a minimum employer contribution rate of 2%, 3%, and 4% effective July 1, 2004, 2005 and 2006 respectively.

<sup>&</sup>lt;sup>5</sup>/ Act 2007-8 established a permanent minimum employer contribution rate floor of 4%.

<sup>&</sup>lt;sup>6</sup> Act 2010-46 set the employer contribution rate at 5% effective July 1, 2010.

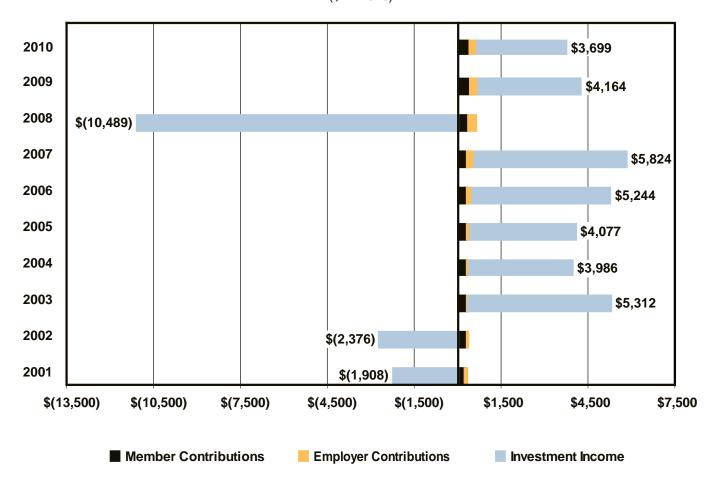
#### Schedule of Additions to Plan Net Assets Ten Years Ended December 31, 2010 (Dollar Amounts in Thousands)

**Employer Contributions** 

Year Ending	Member Contributions	Dollar Amount	% of Annual Payroll	Net Investment Gain/(Loss)	Total
2010	\$349,049	\$273,083	4.9%	\$3,076,410	\$3,698,542
2009	348,805	253,250	4.5	3,561,526	4,163,581
2008	336,833	235,288	4.3	(11,061,207)	(10,489,086)
2007	333,818	243,936	4.6	5,246,730	5,824,484
2006	317,790	196,420	3.8	4,730,043	5,244,253
2005	305,624	148,375	3.0	3,622,820	4,076,819
2004	309,923	106,703	2.2	3,569,323	3,985,949
2003	308,014	68,604	1.4	4,935,699	5,312,317
2002	304,233 1/	50,831	1.0	(2,731,295)	(2,376,231)
2001	240,528	76,710	1.7	(2,225,627)	(1,908,389)

<sup>&</sup>lt;sup>1</sup>/ Effective January 1, 2002, most members' contributions increased from 5.00% to 6.25% of salary as a result of Act 2001-9.

# Additions to Plan Net Assets (\$ millions)

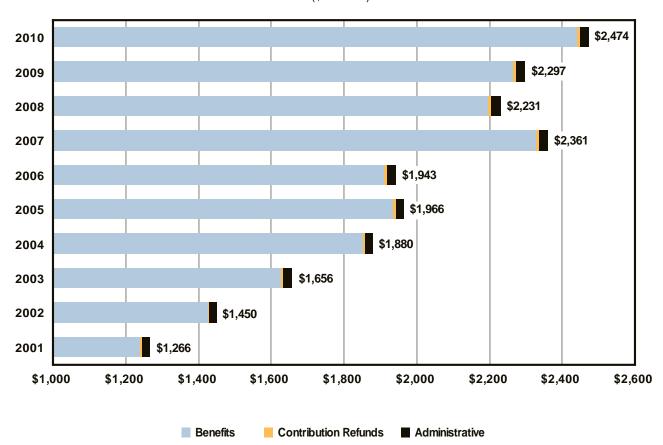


#### Schedule of Deductions from Plan Net Assets Ten Years Ended December 31, 2010 (Dollar Amounts in Thousands)

		Refund of		
Year	Benefits	Contributions	Administrative	Total
2010	\$2,440,246	\$9,007	\$25,136	\$2,474,389
2009	2,265,404	7,968	24,073	2,297,445
2008	2,195,206	9,373	26,720	2,231,299
2007	2,328,185 1/	8,183	24,748	2,361,116
2006	1,911,330	8,096	23,868	1,943,294
2005	1,936,428	7,215	22,704	1,966,347
2004	1,853,117	6,138	21,244	1,880,499
2003	1,627,166 <sup>2/</sup>	5,115	23,646	1,655,927
2002	1,426,257 3/	4,160	19,856	1,450,273
2001	1,237,953 4/	7,176 <sup>5/</sup>	20,887	1,266,016

<sup>&</sup>lt;sup>1</sup>/ 22% increase from prior year is due to large number of employees retiring as a result of changes in health care benefits.

# Deductions From Plan Net Assets (\$ millions)



<sup>&</sup>lt;sup>2</sup> Phase two of Cost of Living Adjustment (COLA) for members who retired between July 2, 1990, and July 1, 2002, became effective July 2, 2003.

<sup>&</sup>lt;sup>3</sup>/ Phase one of two-phase COLA for members who retired before July 2, 1990, became effective July 1, 2002.

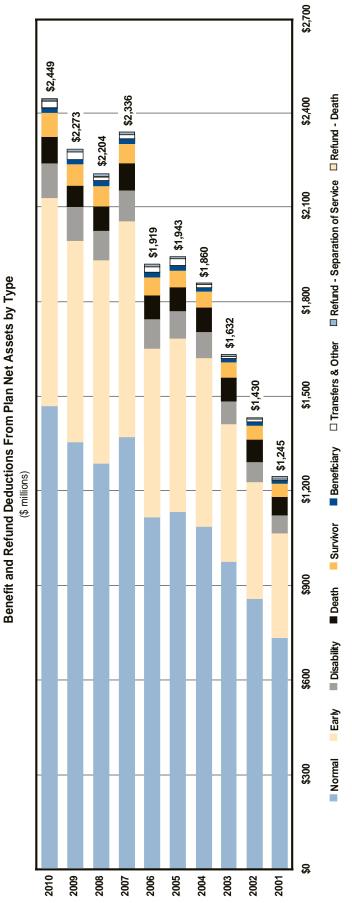
<sup>&</sup>lt;sup>4</sup> For most members who retired after July 1, 2001, the benefit multiplier increased by 25% as a result of Act 2001-9.

<sup>&</sup>lt;sup>5</sup>/ Act 2001-9 also lowered the number of years required to vest benefits from ten years to five years.

Schedule of Benefit and Refund Deductions from Plan Net Assets by Type Ten Years Ended December 31, 2010 (Dollar Amounts in Thousands)

									istalia		
	Retirement	nent					Transfers	Total Benefit	Separation		Total
Year	Normal	Early	Disability	Death	Survivor	Beneficiary	& Other	Deductions	of Service	Death	Refunds
2010	\$1,470,101	\$663,004	\$109,506	\$84,878	\$77,384	\$14,039	\$21,334	\$2,440,246	\$8,693	\$314	\$9,007
2009	009 1,351,710 633	633,880	105,207	65,873	72,466	14,143	22,125	2,265,404	7,824	144	2,968
2008	1,300,312	618,027	102,250	81,728	67,623	14,209	11,057	2,195,206	9,222	151	9,373
2007	1,372,909	683,467	98,605	83,687	62,726	13,949	12,842	2,328,185 1/	8,007	176	8,183
2006	1,117,801	535,156	93,358	73,885	58,038	14,988	18,104	1,911,330	7,971	125	960'8
2005	1,133,694	550,437	88,250	74,312	53,873	14,650	21,212	1,936,428	2,086	129	7,215
2004	1,088,129	534,674	82,515	76,216	51,946	10,818	8,819	1,853,117	6,013	125	6,138
2003	976,102	436,325	72,880	75,368	48,687	9/8/6	7,928	1,627,166	4,994	121	5,115
2002	820,078	368,778	64,789	70,703	45,439	8,902	8,568	1,426,257	4,024	136	4,160
2001	735,919	331,445	57,254	57,744	42,689	8,115	4,787	1,237,953	6,753	423	7,176

<sup>1/</sup> For most members who retired after July 1, 2007, members must contribute to medical insurance premiums as a result of AFSCME agreement dated July 1, 2007.



Schedule of Total Changes in Plan Net Assets
Ten Years Ended December 31, 2010
(Dollar Amounts in Thousands)

		Additions to l	Additions to Plan Net Assets			Deductions from	Deductions from Plan Net Assets		
			Net						Net
Year Ending	Member Contributions	Employer Contributions	Investment Income	Total Additions	Benefits	Refund of Contributions	Administrative	Total Deductions	Increase/ (Decrease)
2010	\$349,049	\$273,083	\$3,076,410	\$3,698,542	\$2,440,246	\$9,007	\$25,136	\$2,474,389	\$1,224,153
2009	348,805	253,250	3,561,526	4,163,581	2,265,404	7,968	24,073	2,297,445	1,866,136
2008	336,833	235,288	(11,061,207)	(10,489,086)	2,195,206	9,373	26,720	2,231,299	(12,720,385)
2007	333,818	243,936	5,246,730	5,824,484	2,328,185	8,183	24,748	2,361,116	3,463,368
2006	317,790	196,420	4,730,043	5,244,253	1,911,330	8,096	23,868	1,943,294	3,300,959
2005	305,624	148,375	3,622,820	4,076,819	1,936,428	7,215	22,704	1,966,347	2,110,472
2004	309,923	106,703	3,569,323	3,985,949	1,853,117	6,138	21,244	1,880,499	2,105,450
2003	308,014	68,604	4,935,699	5,312,317	1,627,166	5,115	23,646	1,655,927	3,656,390
2002	304,233	50,831	(2,731,295)	(2,376,231)	1,426,257	4,160	19,856	1,450,273	(3,826,504)
2001	240,528	76,710	(2,225,627)	(1,908,389)	1,237,953	7,176	20,887	1,266,016	(3,174,405)

Schedule of Investment Income/Loss Ten Years ended December 31, 2010 (Dollar Amounts in Thousands)

	2010	2009	2008	2007	2006	2002	2004	2003	2002	2001
Investment gain/(loss):										
Net appreciation/ (depreciation) in fair value of investments	\$2,211,065	\$2,456,209	\$(9,979,685)	\$4,164,231	\$3,723,160	\$2,811,470	\$2,807,290	\$3,423,081	\$(1,915,634)	\$(1,790,575)
Collective trust fund appreciation/ (depreciation) and income	810,147	1,063,673	(1,377,568)	798,941	641,718	420,888	391,248	1,165,463	(1,310,044)	(1,014,578)
Interest	146,995	149,040	342,163	347,507	350,783	368,610	280,221	237,786	303,421	388,626
Dividends	61,964	69,400	154,779	149,488	152,690	128,480	124,099	113,634	112,015	106,253
Real estate	73,355	73,561	109,523	112,148	145,871	112,057	148,133	168,427	193,719	182,423
Miscellaneous	6,471	3,499	2,969	6,149	3,519	3,537	6,722	7,138	30,035	41,111
	3,309,997	3,815,382	(10,744,819)	5,578,464	5,017,741	3,845,042	3,757,713	5,115,529	(2,586,488)	(2,086,740)
Investment expenses	(235,826)	(260,376)	(310,454)	(344,707)	(298,204)	(234,760)	(196,859)	(187,139)	(153,211)	(148,778)
Net gain/ (loss) from investing activities	3,074,171	3,555,006	(11,055,273)	5,233,757	4,719,537	3,610,282	3,560,854	4,928,390	(2,739,699)	(2,235,518)
From securities lending activities:										
Securities lending income	2,511	7,092	41,319	155,067	170,675	116,477	40,854	16,163	26,696	54,813
Securities lending expenses	(272)	(572)	(47,253)	(142,094)	(160,169)	(103,939)	(32,385)	(8,854)	(18,292)	(44,922)
Net income from securities lending activities	2,239	6,520	(5,934)	12,973	10,506	12,538	8,469	2,309	8,404	9,891
Total net investment gain/(loss)	\$3,076,410	\$3,561,526	\$(11,061,207)	\$5,246,730	\$4,730,043	\$3,622,820	\$3,569,323	\$4,935,699	\$(2,731,295)	\$(2,225,627)

Source: State Employees' Retirement System

## **Schedule of Active Member Statistics**

Ten Years Ended December 31, 2010

	1	Male			Female		Total
	Average Age	Average Service	Average Salary	Averaş Age	ge Average Service	Average Salary	Number of Active Members
2010	46.58	12.36	\$54,983	46.71	11.91	\$46,206	109,255
2009	46.50	12.35	54,414	46.52	12.00	45,987	110,107
2008	46.23	12.21	52,536	46.18	11.79	44,176	110,866
2007	46.11	12.22	51,663	45.95	11.76	43,888	109,610
2006	46.39	12.80	49,455	46.20	12.49	41,616	110,972
2005	46.12	12.71	48,129	45.91	12.46	40,331	109,981
2004	46.14	13.03	48,801	46.01	12.88	40,716	108,405
2003	46.25	13.42	47,717	46.12	13.39	40,120	109,018
2002	46.16	13.55	46,857	45.98	13.48	39,198	111,059
2001	46.08	13.68	45,386	45.88	13.65	37,737	109,716

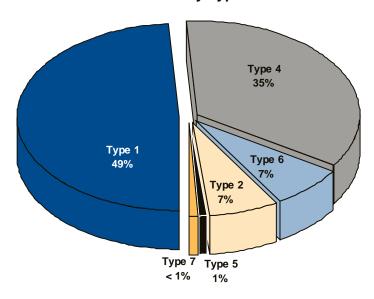
# Schedule of Retired Members by Type of Benefit As of December 31, 2010

Amount of	Total	Total			Type o	f Benefit		
Monthly Benefit	Monthly Benefits	Number of Retirees	1	2	4	5	6	7
≤ \$500	\$6,955,824	28,008	6,888	652	15,922	516	3,718	312
> 500 to 1,000	16,969,424	22,948	11,344	3,739	5,087	288	2,227	263
> 1,000 to 1,500	20,243,212	16,407	9,089	1,663	4,355	115	1,042	143
> 1,500 to 2,000	20,776,038	11,937	6,349	852	4,150	55	472	59
> 2,000 to 2,500	20,588,414	9,194	5,131	429	3,282	37	298	17
> 2,500 to 3,000	18,286,684	6,679	4,055	248	2,201	21	150	4
> 3,000	70,072,223	16,540	11,803	218	4,244	42	225	8
Totals	\$173,891,819	111,713	54,659	7,801	39,241	1,074	8,132	806

## Type of Benefit

- 1 Superannuation
- 2 Disabled
- 4 Early
- 5 Beneficiary
- 6 Survivor
- 7 Alternate Payee

## **Retired Members by Type of Benefit**



#### **Schedule of Retired Members by Option**

As of December 31, 2010

Option Selected	O	ption	Sel	lected
-----------------	---	-------	-----	--------

		_						
Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	FRA	1	2	3	4	Other
≤ \$500	\$6,955,824	28,008	6,532	11,219	6,260	2,151	1,299	547
> 500 to 1,000	16,969,424	22,948	7,709	6,569	4,381	2,243	1,717	329
> 1,000 to 1,500	20,243,212	16,407	4,785	4,615	3,210	1,763	1,894	140
> 1,500 to 2,000	20,776,038	11,937	3,557	3,177	2,019	1,509	1,604	71
> 2,000 to 2,500	20,588,414	9,194	2,667	2,315	1,487	1,235	1,447	43
> 2,500 to 3,000	18,286,684	6,679	1,992	1,591	1,032	917	1,119	28
> 3,000	70,072,223	16,540	5,521	3,464	1,954	2,369	3,183	49
Totals	\$173,891,819	111,713	32,763	32,950	20,343	12,187	12,263	1,207

#### **Options**

FRA - Full Retirement Allowance

Opt. 1 - Annuity for Life with Beneficiary receiving remainder of Present Value when member dies

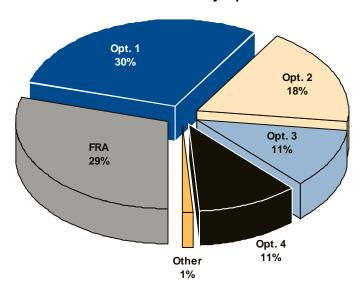
Opt. 2 - Annuity for Life with Beneficiary receiving same Annuity when member dies

Opt. 3 - Annuity for Life with Beneficiary receiving one half the member's Annuity when member dies

Opt. 4 - Member designs a different plan approved by SERS not covered under the above option

Other - Death Benefit and Domestic Relation Order

#### **Retired Members by Option**



# Schedule of Average Monthly Benefit Payments <sup>1</sup>/ Ten Years Ended December 31, 2010

#### **Years Credited Service**

_								
Retirement Effective Dates	< 5	5-9	10-14	15-19	20-24	25-29	30+	
Period 1/1/2010 to 12/31/2010								
Average monthly benefit	\$254	\$398	\$788	\$1,332	\$2,109	\$2,938	\$3,818	
Average Final Average Salary	\$39,114	\$41,128	\$44,562	\$50,607	\$57,784	\$66,053	\$65,579	
Number of retired members	75	755	505	646	712	846	1,662	
Period 1/1/2009 to 12/31/2009								
Average monthly benefit	\$209	\$374	\$740	\$1,337	\$1,936	\$2,919	\$3,767	
Average Final Average Salary	\$32,925	\$38,184	\$43,520	\$50,161	\$55,113	\$65,193	\$64,685	
Number of retired members	60	543	448	545	539	710	1,287	
Period 1/1/2008 to 12/31/2008								
Average monthly benefit	\$198	\$340	\$729	\$1,266	\$1,903	\$2,968	\$3,782	
Average Final Average Salary	\$30,280	\$39,066	\$45,753	\$48,823	\$55,471	\$65,893	\$65,569	
Number of retired members	64	646	484	788	586	705	938	
Period 1/1/2007 to 12/31/2007								
Average monthly benefit	\$219	\$322	\$674	\$1,214	\$1,883	\$2,538	\$3,464	
Average Final Average Salary	\$31,359	\$37,629	\$42,759	\$45,817	\$53,241	\$58,974	\$60,726	
Number of retired members	53	637	476	1,057	759	1,258	3,384	
Period 1/1/2006 to 12/31/2006								
Average monthly benefit	\$174	\$316	\$690	\$1,171	\$1,878	\$2,487	\$3,489	
Average Final Average Salary	\$27,898	\$35,283	\$42,358	\$45,225	\$53,513	\$58,031	\$60,582	
Number of retired members	51	584	491	667	471	627	1,205	
Period 1/1/2005 to 12/31/2005								
Average monthly benefit	\$197	\$335	\$695	\$1,161	\$1,844	\$2,409	\$3,464	
Average Final Average Salary	\$31,822	\$34,767	\$40,577	\$45,052	\$51,985	\$55,391	\$60,758	
Number of retired members	57	579	544	785	588	885	2,034	
Period 1/1/2004 to 12/31/2004								
Average monthly benefit	\$170	\$355	\$674	\$1,171	\$1,820	\$2,255	\$3,230	
Average Final Average Salary	\$26,332	\$34,645	\$39,343	\$44,095	\$49,960	\$53,306	\$56,940	
Number of retired members	53	550	558	878	686	1,130	3,100	
						,	-,	
Period 1/1/2003 to 12/31/2003	\$201	\$370	\$661	\$1,126	\$1,721	\$2,201	\$3,179	
Average monthly benefit  Average Final Average Salary	\$30,920	\$34,935	\$37,342	\$1,126 \$41,727	\$47,340	\$2,201 \$51,372	\$55,947	
Number of retired members	ъзо,920 33	ъз4,933 514	φ37,342 538	φ41,727 851	701	<del>9</del> 31,372	2,633	
	33	314	556	651	701	704	2,000	
Period 1/1/2002 to 12/31/2002	ф <b>э</b> 01	фолг	ф.co.1	ф1 O <b>7</b> 2	¢1 (00	ф <b>о</b> 1 <b>Г</b> О	Ф <b>2 2</b> 64	
Average monthly benefit	\$201	\$355	\$631	\$1,073	\$1,683	\$2,150	\$3,264	
Average Final Average Salary Number of retired members	\$25,626	\$33,588	\$37,370	\$41,421 627	\$45,974 615	\$49,743	\$56,880 1,826	
	29	492	525	627	615	799	1,826	
Period 1/1/2001 to 12/31/2001								
Average monthly benefit	\$166	\$413	\$542	\$967	\$1,445	\$1,874	\$2,959	
Average Final Average Salary	\$27,851	\$32,700	\$35,821	\$40,773	\$43,815	\$47,066	\$55,470	
Number of retired members	25	399	476	594	536	805	1,332	

<sup>&</sup>lt;sup>1</sup>/ Includes Normal Retirement, Early Retirement and Disability Benefits for new retirees in the years listed. Source: State Employees' Retirement System

# **Schedule of Average Annual Benefit Payments** As of December 31, 2010

	Superai	nnuation	Early Re	tirement	Disal	oility		iary and vivor
Age	Male	Female	Male	Female	Male	Female	Male	Female
Under 25	-	-	-	-	-	-	\$6,428	\$7,027
25-29	-	-	\$573	\$612	-	-	8,285	10,357
30-34	-	-	989	773	\$10,005	\$10,451	10,312	11,689
35-39	-	-	1,765	1,428	12,030	11,004	14,368	9,478
40-44	-	-	4,436	2,266	15,030	11,097	6,702	9,979
45-49	-	-	14,022	5,020	16,530	13,297	8,822	8,121
50-54	\$35,946	\$32,784	18,432	8,275	17,756	15,347	6,284	10,374
55-59	37,071	37,142	18,605	14,557	17,449	16,006	9,643	10,736
60-64	34,130	29,084	22,696	16,267	15,642	14,524	9,819	12,578
65-69	30,956	22,915	20,822	14,115	11,957	11,707	11,072	14,020
70-74	27,339	18,634	15,313	10,655	9,977	9,151	9,277	12,149
75-79	22,348	13,969	14,642	9,351	9,317	8,120	8,762	10,363
80-84	19,197	11,361	14,086	8,371	10,035	7,345	8,979	8,901
85-89	16,284	9,658	12,598	7,444	9,561	6,873	7,029	7,476
90 and over	13,117	8,339	12,289	8,778	7,625	6,607	6,081	6,440
Total Average	\$27,054	\$18,640	\$18,183	\$12,035	\$14,579	\$13,036	\$8,961	\$9,929

	Superannuation	Early Retirement	Disability	Beneficiary and Survivor
Average Pension	\$23,491	\$15,225	\$13,774	\$9,833
Average Age	72.7	62.6	61.4	75.0

Schedule of SERS Agency Participation - Twenty Largest Employers

Ten Years Ended December 31, 2010

<sup># -</sup> Number of Active Members % - Percentage of Total Active Members

	2010	_	2009	6	2008	~	2002	7	2006	9	2005	10	2004	4	2003		2002	72	2001	-
Employer Name	#	0%	#	0%	#	%	#	%	#	0%	#	0%	#	%	#	0%	#	0%	#	0%
Dept of Public Welfare	18,007 1	16.48	18,201	16.53	18,618 1	16.79	18,761 1	17.12	19,355	17.44	19,781	17.99	20,175	18.61	20,417	18.73	21,242	19.13	21,507	19.60
Dept of Corrections	16,133 1	14.77	16,174	14.69	16,075 1	14.50	15,523	14.16	15,151	13.65	15,126	13.75	14,463	13.34	14,267	13.09	14,839	13.36	14,416	13.14
Dept of Transportation	12,427 1	11.37	12,548	11.40	12,494	11.27	12,264	11.19	12,484	11.25	12,388	11.26	12,428	11.46	12,603	11.56	12,768	11.50	12,623	11.51
Pennsylvania State University	6,653	60.9	6,608	00.9	6,468	5.83	6,210	2.67	6,265	5.65	6,210	5.65	6,085	5.61	6,102	2.60	6,071	5.47	660′9	5.56
Pennsylvania State Police	6,084	5.57	6,102	5.54	6,222	5.61	997'9	5.72	6,172	5.56	6,127	5.57	5,885	5.43	5,803	5.32	5,807	5.23	5,650	5.15
Dept of Labor and Industry	5,919	5.42	5,719	5.19	5,178	4.67	5,234	4.78	5,692	5.13	2,608	5.10	5,648	5.21	5,823	5.34	5,938	5.35	5,416	4.94
State System of Higher Education	5,375	4.92	5,556	5.05	5,521	4.98	5,316	4.85	5,344	4.82	5,240	4.76	5,248	4.84	5,432	4.98	5,565	5.01	2,697	5.19
Liquor Control Board	4,286	3.92	4,303	3.91	4,097	3.70	3,969	3.62	4,102	3.70	3,994	3.63	3,840	3.54	3,686	3.38	3,672	3.31	3,523	3.21
Dept of Environmental Protection	2,623	2.40	2,677	2.43	2,802	2.53	2,767	2.52	2,921	2.63	2,836	2.58	2,854	2.63	2,916	2.67	2,973	2.68	3,016	2.75
Dept of Military and Veterans Affairs	2,505	2.29	2,478	2.25	2,568	2.32	2,545	2.32	2,540	2.29	2,492	2.27	2,402	2.22	2,291	2.10	2,220	2.00	2,127	1.94
PA Higher Education Assistance Agency	2,265	2.07	2,230	2.03	2,135	1.93	2,494	2.28	2,524	2.27	2,378	2.16	1,968	1.82	1,957	1.80	1,908	1.72	1,811	1.65
Dept of Revenue	2,166	1.98	2,170	1.97	2,366	2.13	2,289	2.09	2,319	2.09	2,322	2.11	2,238	2.06	2,312	2.12	2,462	2.22	2,493	2.27
PA Turnpike Commission	2,132	1.95	2,164	1.97	2,254	2.03	2,232	2.04	2,276	2.05	2,227	2.02	2,282	2.11	2,354	2.16	2,330	2.10	2,404	2.19
Administrative Office of PA Courts	2,025	1.85	1,992	1.81	2,015	1.82	1,988	1.81	1,989	1.79	1,953	1.78	1,957	1.81	1,884	1.73	1,883	1.70	1,834	1.67
Executive Offices	2,006	1.84	2,155	1.96	2,257	2.04	2,201	2.01	2,247	2.02	2,246	2.04	2,237	2.06	2,351	2.16	2,349	2.12	2,374	2.16
Dept of Conservation & Natural Resources	1,913	1.75	2,031	1.84	2,111	1.90	2,080	1.90	2,093	1.89	1,971	1.79	1,927	1.78	2,009	1.84	2,079	1.87	2,045	1.86
House of Representatives	1,825	1.67	1,779	1.62	1,736	1.57	1,758	1.60	1,701	1.53	1,706	1.55	1,662	1.53	1,619	1.49	1,568	1.41	1,544	1.41
Dept of Health	1,335	1.22	1,409	1.28	1,473	1.33	1,433	1.31	1,479	1.33	1,435	1.30	1,386	1.28	1,393	1.28	1,378	1.24	1,330	1.21
Dept of General Services	1,108	1.01	1,208	1.10	1,270	1.15	1,267	1.16	1,340	1.21	1,306	1.19	1,230	1.13	1,281	1.18	1,357	1.22	1,350	1.23
Board of Probation and Parole	1,100	1.01	1,108	1.01	1,098	66.0	1,009	0.92	974	88.0	1,010	0.92	866	0.92	986	06:0	686	68.0	944	98.0
Active Members for Twenty Largest Employers	8 288'26	89.59	98,612	89.56	98,758	80.08	909'26	89.05	896'86	89.18	98,356	89.43	96,913	89.40	97,486	89.42	99,398	89.50	98,203	89.51
Total Number of Active Members	109,255	25	110,107	201	110,866	99	109,610	10	110,972	772	109,981	181	108,405	105	109,018	118	111,059	926	109,716	16

#### Statistical Section Schedule of Additional Participating Employers As of December 31, 2010

Bloomsburg University Community Activities

Bucks County Community College Bucks County Health Department Bucks County Intermediate Unit

California University Student Association

Capitol Preservation Committee Center for Rural Pennsylvania

Central Susquehanna Intermediate Unit Chester County Health Department

Civil Service Commission

Clarion University Student Association Community College of Allegheny County Community College of Philadelphia Delaware County Community College Delaware River Joint Toll Bridge Delaware River Port Authority

Delaware Valley Regional Planning Commission

Department of Agriculture Department of Banking

Department of Community & Economic Development

Department of Education
Department of State

Department of the Auditor General

East Stroudsburg University Student Association

Edinboro University Services Inc. Environmental Hearing Board Erie County Health Department Fish and Boat Commission

Game Commission Governor's Office

Harrisburg Area Community College Historical and Museum Commission House Appropriations Committee(D) House Appropriations Committee(R)

Independent Regulatory Review Commission

Indiana University Student Co-op

Insurance Department

Intergovernmental Cooperation Authority Joint Legislative Conservation Committee Joint State Government Commission Kutztown University Student Services Lancaster-Lebanon Intermediate Unit Legislative Budget & Finance Committee
Legislative Data Processing Center
Legislative Reference Bureau
Lehigh Carbon Community College
Lieutenant Governor's Office
Local Government Commission
Lock Haven University Student Co-op

Luzerne County Community College Mansfield University Community Services

Milk Marketing Board Millersville Student Services

Montgomery County Community College

Northampton Community College

Office of Attorney General Office of Liquidations

Pennsylvania College of Technology

Pennsylvania Convention Center Authority Pennsylvania Emergency Management Agency

Pennsylvania Gaming Control Board

Pennsylvania Health Care Cost Containment Council

Pennsylvania Highlands Community College Pennsylvania Housing Finance Agency

Pennsylvania Infrastructure Investment Authority Pennsylvania Municipal Retirement System

Pennsylvania Port Authority

Port Authority Transit Corporation

Public School Employees' Retirement System

Public Utility Commission

Reading Area Community College

Securities Commission Senate of Pennsylvania

Shippensburg Student Association Slippery Rock Student Government State Employees' Retirement System

**State Ethics Commission** 

State Public School Building Authority

State Tax Equalization Board

Susquehanna River Basin Commission Thaddeus Stevens College of Technology

Treasury Department

U.S. Property & Fiscal Office for Pennsylvania West Chester University Student Services Westmoreland County Community College

